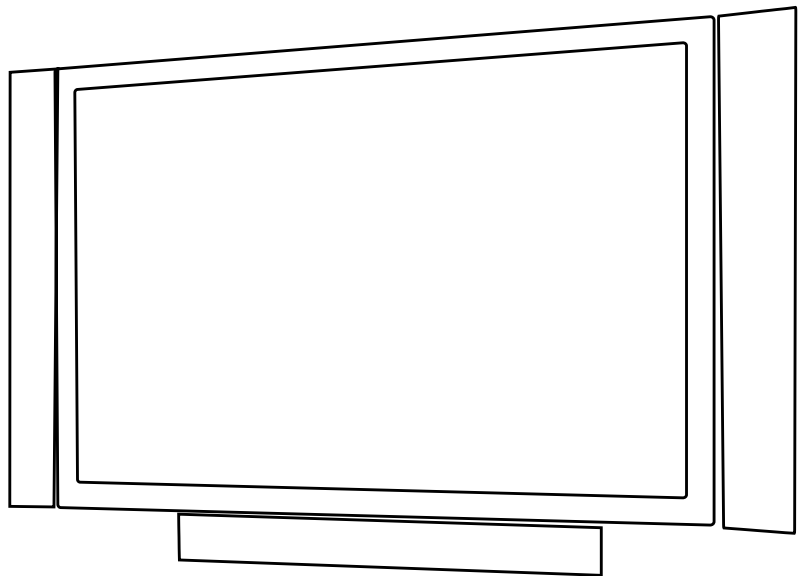


Service Manual

42" PLASMA PDP TV

CHASSIS : SP-200N

MODEL : DPN-4274NHS



Caution

: In this Manual, some parts can be changed for improving. their performance without notice in the parts list. So, if you need the latest parts information, please refer to PPL(Parts Price List)in Service Information Center(<http://svc.dwe.co.kr>)

DAEWOO ELECTRONICS Corp.

[http : //svc.dwe.co.kr](http://svc.dwe.co.kr)

Jun. 2004

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II. Parts of MODULE

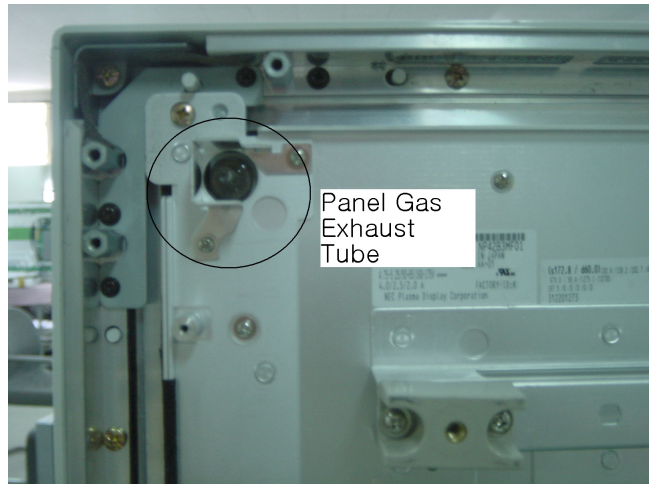
1. Confirmation Manual
2. Repair Manual

I. Parts with the exception of MODULE

1. Safety Precautions

1. Safety Precautions

- (1) When moving or laying down a PDP Set, at least two people must work together. Avoid any impact towards the PDP Set.
- (2) Do not leave a broken PDP Set on for a long time. To prevent any further damages, after checking the condition of the broken Set, make sure to turn the power (AC) off.
- (3) When opening the BACK COVER, you must turn off power (AC) to prevent any electric shock. When PDP is operating, high voltage and high current inside the Set can cause electric shocks.
- (4) When loosening screws, check the position and type of the screw. Sort out the screws and store them separately for reassembling. Because screws holding PCBs are working as electric circuit GROUNDING, make sure to check if any screw is missing when assembling/reassembling. Do not leave any screws inside the set.
- (5) If you open the BACK COVER, you will see a Panel Gas Exhaust Tube (Picture. 1-1) inside the bracket. If this part is damaged, the entire PDP PANEL must be replaced. Therefore, when working with the set, be careful not to damage this part.



Picture 1-1. Panel Gas Exhaust Tube

- (6) A PDP Set contains different kinds of

connector cables. When connecting or disconnecting cables, check the direction and position of the cable beforehand.

- (7) Connect/disconnect the connectors slowly with care especially FFC (film) cables and FPC cables. Do not connect or disconnect connectors instantaneously with force, and handle them carefully for reassembling.
- (8) Connectors are designed so that if the number of pins or the direction does not match, connectors will not fit. When having problem in plugging the connectors, check their kind, position, and direction.

2. Product Specification

2-1. SPECIFICATION

ITEM	SPECIFICATION	REMARK
1. GENERAL		
1-1. MODEL NO	DPN-4274NHS	
1-2. CHASSIS NO	SP-200N	
1-3. SCREEN SIZE	42"(16:9)	
1-4. COUNTRY	USA	
1-5. RESOLUTION	853(H) X 480(V)	
1-6. REMOCON TYPE	R-53CP3	
1-7. SAFETY STANDARD	UL, C-UL, FCC(CLASS B)	
1-8. TUNING METHOD	FS	
1-9. MEMORY CHANNEL	181CH	
2. MECHANICAL		
2-1. APPEARANCE		
1) WITHOUT STAND	WxHxD = 1044 x 631 x 89.0mm	
2) WITH STAND	WxHxD = 1044 x 705.9 x 310 mm	
2-2. WEIGHT		
1) WITHOUT STAND	30Kg	
2) WITH STAND	34.5Kg	
3. ELECTRICAL		
3-1. VIDEO INPUT	COMPOSITE(NTSC, PAL, SECAM, PAL-M/N, NTSC4.43) & S-VHS(50/60Hz Y/C), 2 sets each	
3-2. DTV/DVD INPUT	1080i, 720P, 480P, 480i, 576P, 576i (Y, Pb/Cb, Pr/Cr COMPONENT SIGNAL) 2 sets each	
3-3. PC INPUT	VGA ~ SXGA(Dot clock : 120MHz), 15 PIN D-SUB 1 set	
3-4. DVI INPUT	DVI-D INPUT (DVI Jack) 1 set	
3-5. TV INPUT		
1) COLOR STANDARD	NTSC-M	
2) ANTENNA IN	ONE INPUT 75Ω Unbalanced (F-Type)	
3) RECEPTION CHANNEL		
	VHF : CH02 ~ 13	
	UHF : CH14 ~ 69	
	CATV : CH1, 14 ~ 125	
4) IF & SUBCARRIER	PIF : 45.75MHz	
	SIF : 41.25MHz,	
	COLOR S/C : 3.58MHz,	
	SOUND S/C : 4.5MHz, 4.72MHz	
3-6. SOUND INPUT	VIDEO 2 sets, DTV/DVD 2 sets, PC 1 set,DVI 1 set	
3-7. SPEAKER OUTPUT	10W(R) + 10W(L)	
3-8. POWER REQUIREMENT	AC 100V~240V, 50/60Hz	
3-9. POWER CONSUMPTION	260W(Typical)	
3-10. RS-232 CONTROL	RS-232 Communication (FOR SERVICE UPGRADE)	

Product Specification

ITEM	SPECIFICATION	REMARK
3-11. AV OUTPUT 3-12. FUNCTION 1) SCALING 2) ZOOM 3) OSD Language 4) OTHERS	CVBS 1 set, SOUND R/L 1 set DVI : H/V SIZE PC: H/V SIZE ,POSITION ,PHASE, FREQUENCY VIDEO/DVD(480i/576i):16:9, 4:3, EnlargeLB, EnlargeLBS, PANORAMA DTV/DVD(480P or higher resolution) : 16:9, 4:3 20 STEP ZOOM and PANING Function Support 3 Languages (English, Spanish, French) STILL, SLEEP MODE, SOUND MODE TIMER, PICTURE MODE, CAPTION, V-CHIP	
4. OPTICAL 4-1. SCREEN SIZE 4-2. ASPECT RATIO 4-3. NUMBER OF PIXELS 4-4. DISPLAY COLOR 4-5. CELL PITCH 4-6. PEAK LUMINANCE 4-7. CONTRAST RATIO 4-8. VIEWING ANGLE	42”(106 cm) DIAGONAL 16 : 9 853(H)X480(V) 16.77 Million COLOR(RGB, 8BIT each) 1.08(H)X1.08(V)mm (1 Pixel = a Set of RGB Cells) 400cd/m ² (WITH FILTER GLASS) 1500:1 (Dark Room) 160 degree(VERTICAL/HORIZONTAL)	
5. USERCONTROL & ACCESSORIES 5-1 CONTROL BUTTON(SET) 5-2. REMOTE CONTROL (R-53CP3) 5-3. ACCESSORIES 5-4. OPTIONAL PARTS	PUSH-PULL S/W : AC POWER BUTTON SOFT S/W: MOVE/CH(UP, DOWN), VOLUME(LEFT, RIGHT), MENU, INPUT SELECT POWER, Universal Selection(TV, VIDEO/DVD, CABLE, SAT), 10KEY(0~10), DISPLAY, 100, VCR /DVD KEY(F.R/SLOW, PLAY, F.F/SLOW, REC, STOP, PAUSE, OPEN/CLOSE, PREV, NEXT),MENU, TV/VIDEO, MULTIMEDIA, STILL, PREV CH, CAPTION, MUTE, CHANNEL(UP/DOWN), VOLUME(UP/DOWN), PICTURE MODE, SCREEN SIZE, ZOOM-, ZOOM+, ADD/ERASE, SLEEP, MTS, SOUND MODE REMOCON, BATTERY, USERS MANUAL, A/V CABLE, RF CABLE STAND, WALL HANGER, SPEAKER UNITS(Left, Right)	

Product Specification

2-2. Available Input Signal

(1) PC & DVI

Resolution	H Freq. (KHz)	V Freq. (Hz)	Remark	DVI	PC
640x400	37.861	85.080	VESA		O
640x480	31.469	59.940	DOS	O	O
	37.861	72.809	VESA	O	O
	37.500	75.000	VESA	O	O
	43.269	85.061	VESA	O	O
720x400	31.469	70.087	IBM	O	O
	37.927	85.039	VESA		O
800x600	35.156	56.250	VESA	O	O
	37.879	60.317	VESA	O	O
	48.077	72.188	VESA	O	O
	46.875	75.000	VESA	O	O
	53.674	85.061	VESA	O	O
1024x768	48.363	60.004	VESA	O	O
	56.476	70.069	HP&VESA	O	O
	60.023	75.029	VESA	O	O
	68.677	84.997	VESA		O
1152x864	67.500	75.000	VESA	O	O
1280x960	60.000	60.000	VESA	O	O

(2) DTV

-1080i/ 60 Hz

-720P / 60 Hz

-480P / 60 Hz

(3) VIDEO

-PAL, PAL-M, PAL-N

-NTSC , NTSC4.43

- SECAM

Product Specification

2-3. Remote Control Setup Code

[BRAND LIST : R-53CP3]	
1. VIDEO/DVD (STANDARD : 004)	LAST UPDATE : 2004.05.19
1) VIDEO	
Maker (Brand) Name	Code Number (3 digit) List
AKAI	022 048 050 108 109 126
AMPRO	076
ANAM	037 039 089
AUDIO DYNAMICS	018 029 044 048
BROKSONIC	041 043 110
CALIFORNIA AUDIO	201
CANON	034 037 039
CAPEHART	094
CRAIG	003 045 116
CURTIS MATHES	037 039
DAEWOO	004 012 014 017 068 069 094 096 097 098 102 103 104
DAYTRON	094
DBX	018 029 044 048
DENON	202 219 222
DISH	005
DYNATECH	057
ELECTROHOME	063
EMERSON	013 023 031 033 035 037 041 042 043 050 087 110 112 119
FISHER	003 015 016 017
GE	037 039 067 076 093 095 124 127 203 204
GO VIDEO	113 117
GOLDSTAR	018 019 026 087 092 100 107 205
HARMAN KARDON	018 049
HITACHI	011 048 067 118 130
INSTANTREPLAY	037 039
JCL	037 039
JCPENNY	018 019 021 039 045 070 087
JENSEN	048
JVC	018 037 039 048 052 054 059 064 111 130 132 206
KENWOOD	020 044 048 052 207
LOTTE	208
LXI	019 020 087
MAGIN	045

Product Specification

Maker (Brand) Name	Code Number (3 digit) List
MAGNAVOX	037 039 072 209
MARANTZ	018 037 039 073
MARTA	087
MATSUI	033 036
MEI	037 039
MEMOREX	003 017 020 037 039 057 076 087 115 120
MGA	049 050 063
MINOLTA	019 026
MITSUBISHI	019 026 049 050 053 055 063 065 131 223
MULTITECH	030
NAD	210
NEC	018 029 044 048 052
NORDMENDE	048
ONKYO	215
OPTIMUS	211
OPTONICA	057 058
PANASONIC	070 074 078 086 114 125 224 225
PENTAX	019 026 037 039 067
PHILCO	037 039
PHILIPS	037 039 058 075 087
PILOT	087
PIONEER	019 027 052 212 220
PORTLAND	094
PULSAR	076
QUARTZ	002 020
QUASAR	039 070 079 125
RCA	019 026 039 066 067 093 095 124 125 127 218
REALISTIC	003 015 017 020 037 039 045 057 058 087
RICO	062
RUNCO	128 227
SALORA	020
SAMSUNG	038 045 088 090 091 093 095 098 099 101 105 106 109 231
SANSUI	028 048 052 116
SANYO	003 014 017 020 115 213
SCOTT	023 043 098 110 112

Product Specification

Maker (Brand) Name	Code Number (3 digit) List
SEARS	003 015 016 017 019 020 026 037 047 077 087
SHARP	037 058 129 221 228
SHINTOM	030
SONY	003 016 037 056 060 061 062 080 081 082 129 214
STS	019
SYLVANIA	037 039 063
TANDY	017
TATUNG	044 048
TEAC	044 048
TECHNICS	037 039 226
TEKNIKA	025 037 039 087
THOMSON	203 204
TMK	013
TOSHIBA	015 019 047 051 063 085 098 112
TOTEVISION	045 087
UNITECH	045
VECTOR RESEARCH	018
VICTOR	052
VIDEO CONCEPTS	018 050
VIDEOSONIC	045
WARDS	003 019 023 030 037 039 045 057 058 112
YAMAHA	018 044 048 216 217 230
ZENITH	052 060 062 076 083 087

Product Specification

2) DVD

Maker (Brand) Name	Code Number (3 digit) List
ANAM	358 359
AKAI	354
DAEWOO	352 360
DENON	357 361
HYUNPAZ	362
KENWOOD	356
LG	350 368 369
MAGNAVOX	355
ONKYO	365 366 367
PANASONIC	357 370
PHILIPS	355
PIONCER	353
SAMSUNG	351 363 364
THOMSON	371
TOSHIBA	355
YAMAHA	357
WILL CAN	372

Product Specification

2. SAT (STANDARD : 004)

Maker (Brand) Name	Code Number (3 digit) List
ALPHASTAR DSR	122 142
AMPLICA	056
CHANNEL MASTER	020 021 022 025 061
CHAPARRAL	015 016 019 080
CITOH	060
CURTIS MATHES	056
DAEWOO	004
DISH	005
DRAKE	012 013 017 018 113
DX ANTENNA	031 052 062 079
ECHOSTAR	064 095 097 101
ELECTRO HOME	092
EUROPLUS	115
FUJITSU	024 028 029 034
GENERAL INSTRUMENT	003 011 023 065 103
HUGHES	072 137
JANIEL	066
JERROLD	067
KATHREIN	110
LUXOR	068
MACOM	017 065 069 070 071
NEXTWAVE	123 124
NORSAT	073 074
PANASONIC	066
PANSAT	120
PERSONAL CABLE	118
PHILIPS	075
PICO	107
PRESIDENT	026 104
PRIMESTAR	112
PROSAT	076
RCA	001 108 136 139
REALISTIC	049 077
SAMSUNG	122 142
SATELLITE SERVICE	035 041 053 088
SCIENTIFIC ATLANTA	039

Product Specification

Maker (Brand) Name	Code Number (3 digit) List
SONY	105 138
STARCAST	047
SUPER GUIDE	027 123 124
TEECOM	030 033 078 090 091 093 109
TOSHIBA	002 126 143
UNIDEN	023 032 048 049 050 051 054 055 081 082 083 089 103
ZENITH	084 085 086 087 094 119

Product Specification

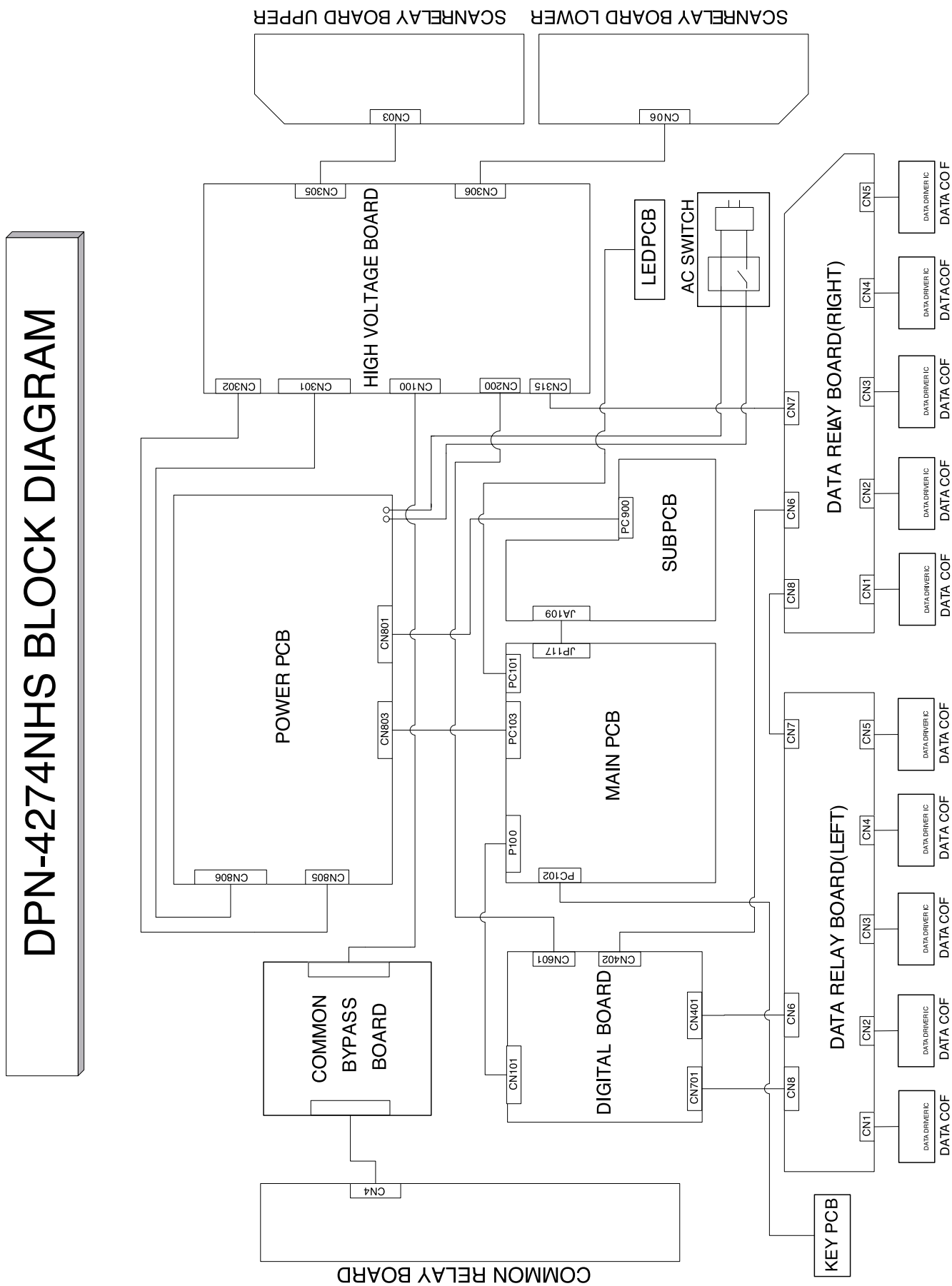
3. CATV (STANDARD : 004)

Maker (Brand) Name	Code Number (3 digit) List
ABC	001 003 011 045 048 052 059
ANTRONIX	021
ARCHER	012 014 021 031
CABLE STAR	033
CENTURION	092
CENTURY	014
CITIZEN	014
COLOUR VOICE	069 090
COMBANO	083 084
COMTRONICS	026 037
DIAMOND	030
EAGLE	027 037 046
EASTERN	063 066 070
ELECTRICORD	039
GE	076
GEMINI	015 029 032 060
GI	001
GOLDEN CHANNEL	037
HAMLIN	055 056 061
HITACHI	001 061
HOSPITALITY	074 080
JERROLD	001 002 003 011 015 016 017 073
M-NET	043
MACOM	040
MAGNAVOX	017 019 068 082
MEMOREX	058
MOVIE TIME	035 039
NSC	022 035 044 075
OAK	023 038 043 059
PANASONIC	050 053
PARAGON	058
PHILIPS	013 019 020 027 069 085 090
PIONEER	001 041 057 067 079
POST NEWS WEEK	023
PTS	018 054 075 076
PULSAR	058

Product Specification

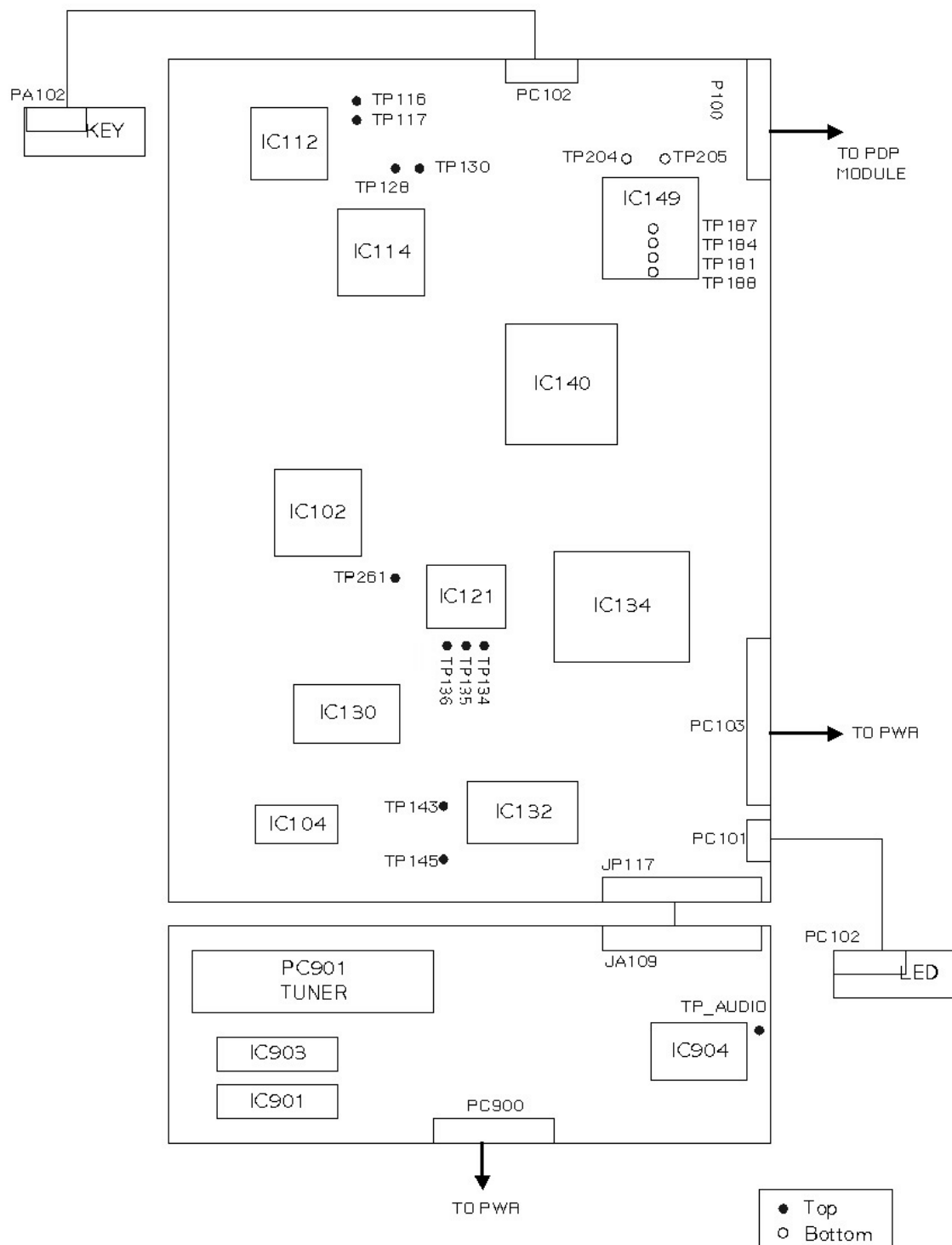
Maker (Brand) Name	Code Number (3 digit) List
RCA	053
REGAL	055 056
REGENCY	063
REMBRANT	032
SAMSUNG	037 072
SCIENTIFIC ATLANTA	003 018 047 048 049 051 052
SHERITECH	029
SIGNAL	037
SIGNATURE	001
SKYLIFE	004
SL MARX	037
SPRUCER	053 081
STARCOM	002 011 015 016
STARGATE	015 037
SYLVANIA	071
TADIRAN	037
TANDY	024
TELECAPATION	028
TEXSCAN	036 071
TOCOM	045 046 062
TOSHIBA	058
UNIKA	014 021 031
UNITED CABLE	011 059
UNIVERSAL	012 014 021 031 033 034 039 042
VIEWSTAR	019 022 025 086 087 088 089
ZENITH	058 065

3. BLOCK DIAGRAM



4. Description of A/V(MAIN and SUB PCB) and POWER

4-1. Block Diagram of main IC and TP



Description of A/V(MAIN and SUB PCB) and POWER

4-2. Overview

A/V block (Main and Sub PCB) is Multi Media circuit board that can process various input signals such as video, component, PC, DVI, and analog TV signal. It is mainly composed of switching, sync processing, decoding, analog TV, digital image processing, and system control part

4-2-1. Composite video and Y/C(S-Video)

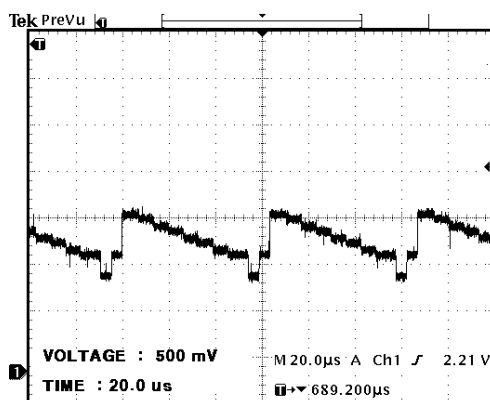
Composite and Y/C have similar signal path. IC102 takes 2 composite inputs and 2 S-video inputs. The switched composite video signal goes into IC130 and then to IC132. The switched Y/C signal is directly inputted to IC132. One of composite video signal or Y/C goes through IC134 for deinterlacing and IC140 for digital image processing.

- Main IC

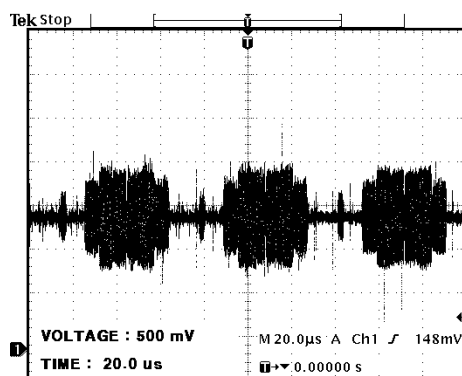
- A. IC102: Switching IC (Input: analog inputs Output: an analog output)
- B. IC130: 3D Y/C separator (Input: NTSC CVBS Output: Y/C)
- C. IC132: Video processor (Input: Y/C, CVBS Output: 16bit digital, HV)
- D. IC134: Deinterlacer (Input: 16bit digital, HV Output: 24bit digital RGB, HV)
- E. IC140: Image Processor (Input: 24bit digital RGB, HV Output: 24bit digital RGB, HV)

- Main TP (Input: Color Bar Pattern)

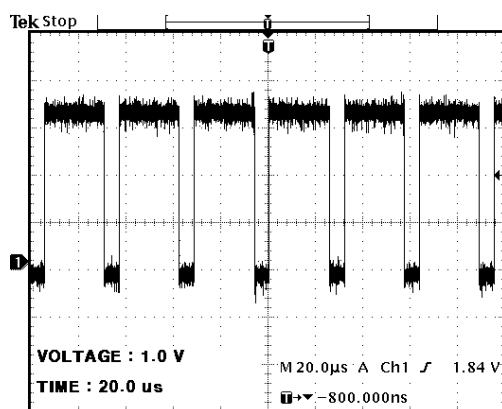
◆TP145: Brightness signal (input to IC132)



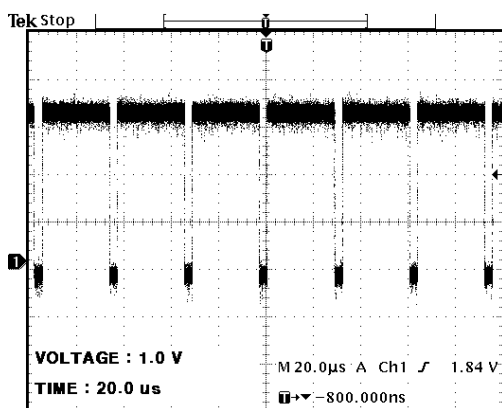
◆TP143: Color signal (input to IC132)



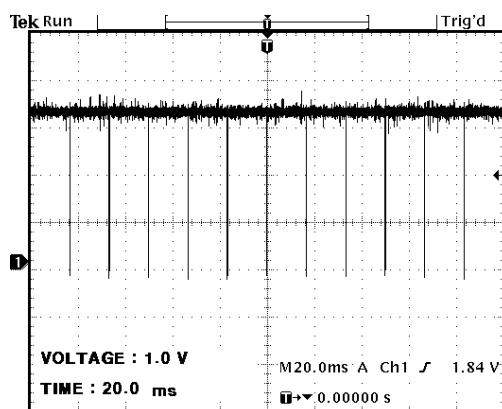
◆TP181: Data enable (output of IC140)



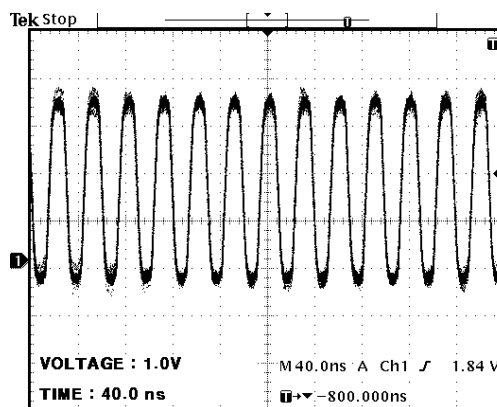
◆TP184: Horizontal sync (output of IC140)



◆TP187: Vertical sync (output of IC140)



◆TP188: Clock for display (output of IC140)



4-2-2. TV signal

Tuner(PC901) receives antenna signal and outputs CVBS and sound signal. IC102 switches out the CVBS and the rest of the signal flow is same as composite video signal flow mentioned earlier.

- Main IC

- A. PC901: Tuner (Input: antenna signal Output: CVBS)
- B. IC102: Switching IC (Input: CVBS Output: CVBS)
- C. IC130: 3D Y/C separator (Input: NTSC CVBS Output: Y/C)
- D. IC132: Video processor (Input: Y/C Output: 16bit digital, HV)
- E. IC134: Deinterlacer (Input: 16bit digital, HV Output: 24bit digital RGB, HV)
- F. IC140: Image Processor (Input: 24bit digital RGB, HV Output: 24bit digital RGB, HV)

- Main TP (Input: Color Bar Pattern)

- ◆TP143, 145
- ◆TP181, 184, 187, 188

4-2-3. DTV/DVD signal

Both DTV(Y, Pb, Pr) and DVD(Y, Cb, Cr) share same jack and signal path. IC102 switches out signal and also detects type of signal so that IC121 can convert the analog signal to digital. Then the signal goes through IC134(deinterlacer) and IC140 for digital image processing.

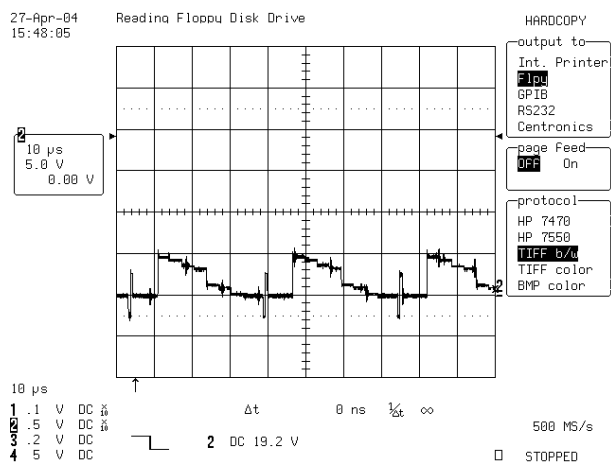
- Main IC

- A. IC102: Switching IC (Input: Component Output: Component, HV)
- B. IC121: A/D converter (Input: Component, HV Output: 24bit digital RGB, HV)
- C. IC134: Deinterlacer (Input: 24bit digital RGB, HV Output: 24bit digital RGB, HV)
- D. IC140: Image Processor (Input: 24bit digital RGB, HV Output: 24bit digital RGB, HV)

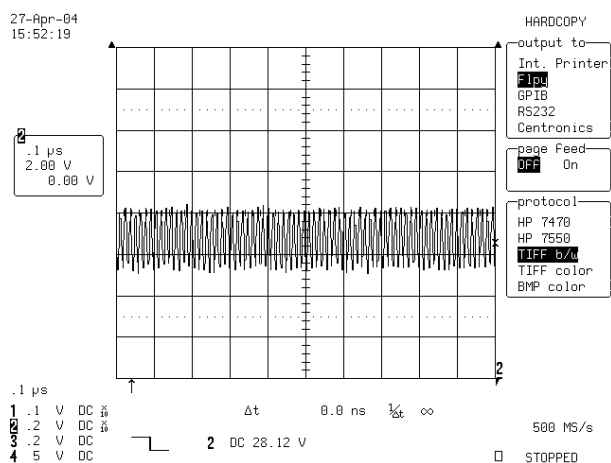
Description of A/V(MAIN and SUB PCB) and POWER

- Main TP (Input: 480P, Color Bar Pattern)

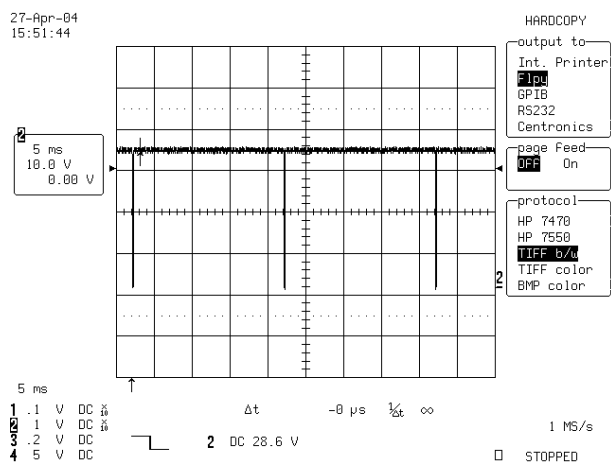
◆ TP261: Y signal (Input to IC121)



◆ TP134: Clock (output to IC121)

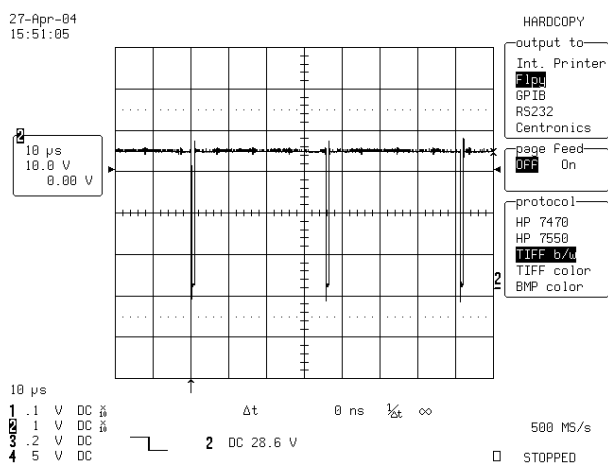


◆ TP135: Horizontal sync (output of IC121)



Description of A/V(MAIN and SUB PCB) and POWER

◆ TP136: Vertical sync (output of IC121)



4-2-4. PC (Personal Computer) signal

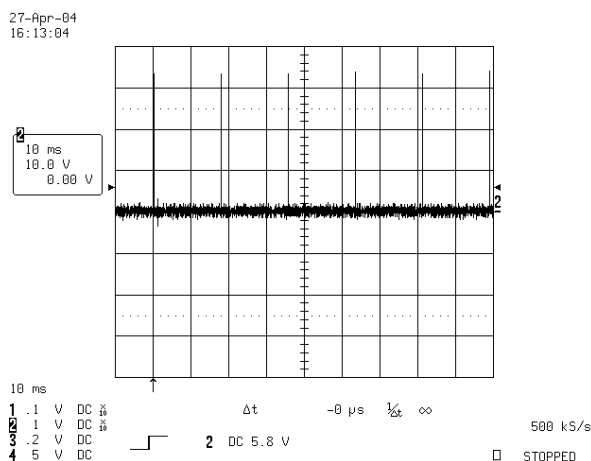
PC signal is switched out by IC109 and input to IC114 for A/D conversion. Then the signal goes through IC140 for digital image processing.

- Main IC

- A. IC109: Switching IC (Input: Analog RGB, H, V Output: Analog RGB, H, V)
- B. IC114: A/D converter (Input: Analog RGB, H, V Output: 24bit digital RGB, H, V)
- C. IC140: Image Processor (Input: 24bit digital RGB, H, V Output: 24bit digital RGB, H, V)

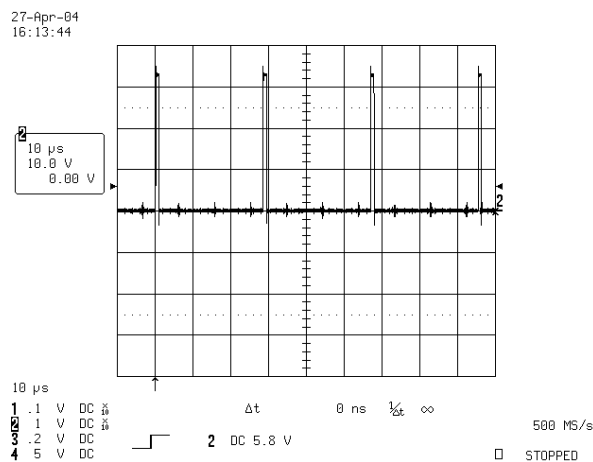
- Main TP (Input: Color Bar Pattern)

◆ TP130: Vertical sync (output of IC114)

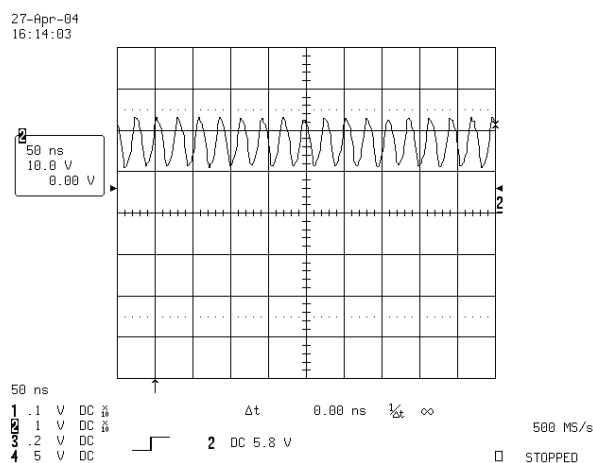


Description of A/V(MAIN and SUB PCB) and POWER

◆ TP128: SYNC for PLL (output of IC114)



◆ TP127: Output clock (output of IC114)



4-2-5. DVI(Digital Visual Interface) signal

To process DVI signal, graphic card of AV device reads EDID data from IC101(ROM). Then DVI signal is directly inputted to IC112, which outputs digital 24bit RGB and H, V. The output goes through IC140 for digital image processing.

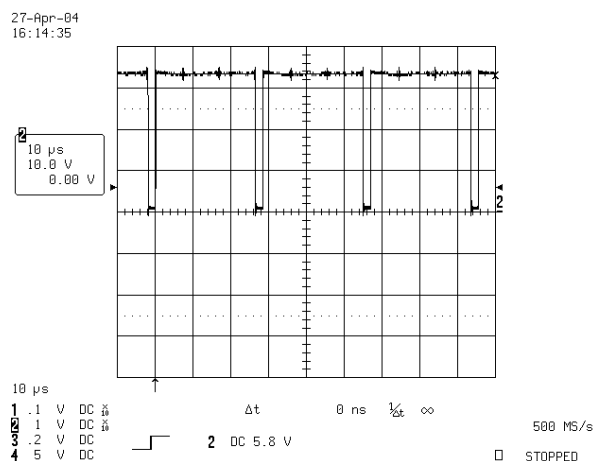
- Main IC

- A. IC101: ROM containing EDID data (EDID: display capabilities such as resolution, aspect ratio etc.)
- B. IC112: DVI signal processor (Input: TMDS Output: 24bit digital RGB, H, V)

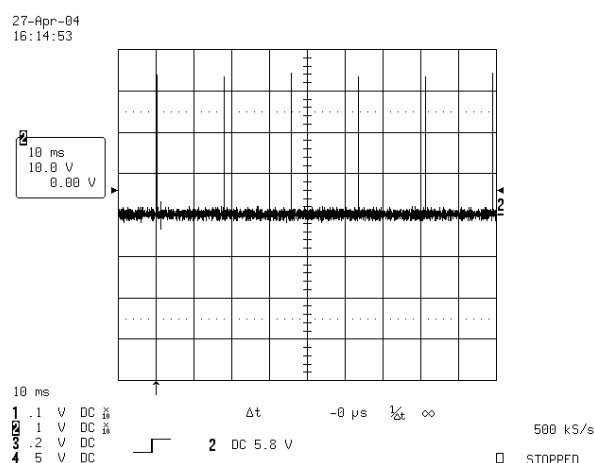
Description of A/V(MAIN and SUB PCB) and POWER

- Main TP (Input: Color Bar Pattern)

◆ TP116: Horizontal sync (output of IC112)



◆ TP117: Vertical sync (output of IC112)



4-2-6. Video Enhancer and LVDS transmitter (for all inputs)

Outputs of IC140 are inputted to IC149(video signal enhancer) which improves picture quality greatly. Outputs of IC149 are inputted to IC150 which is a LVDS transmitter. The converted LVDS signal is transmitted to the digital board.

- Main IC

- A. IC149: Video enhancer (Input: 24bit digital RGB, H, V Output: 24bit digital RGB, H, V)
- B. IC150: LVDS transmitter (Input: 24bit digital RGB, H, V Output: LVDS signal)

- Main TP (Input: Color Bar Pattern)

◆ TP204: Horizontal sync (output of IC149), refer to TP184

◆ TP205: Vertical sync (output of IC149), refer to TP187

Description of A/V(MAIN and SUB PCB) and POWER

4-2-7. Audio signal processing, KEY, and LED

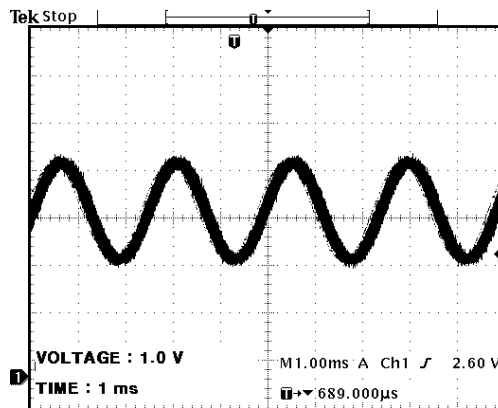
IC104 switches Audio signals and passes a switched signal to IC904 for audio signal processing. IC904 controls sound parameters such as Volume, Balance, and Equalize. The outputs of IC904 are passed to IC901(left), and IC903(right) respectively to amplify the signals. KEY and LED PCBs send signals received from key buttons and LED to IC140 for command processing.

- Main IC

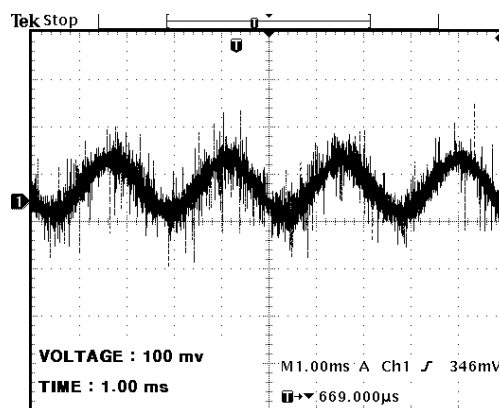
- A. IC104
- B. IC904
- C. IC901, IC903

- Main TP (Input: Sound wave 400Hz)

◆ TP_AUDIO: AUDIO SIGNAL that goes into MSP3420 before AUDIO PROCESSING

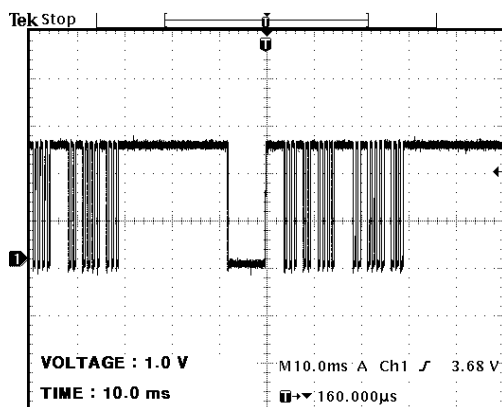


◆ RIGHT (LEFT) : AMP input signal before 30dB amplification



Description of A/V(MAIN and SUB PCB) and POWER

◆ Remote control signal



4-3. POWER PCB

<Input Source>

- ◆ Rating: AC100V ~ AC240V (Variable Range- AC85V~ AC276V)
- ◆ Regulation Method: Transistor & Switching Method
- ◆ Input Frequency: 50~60Hz (Variable Range- 45Hz ~ 66Hz)
- ◆ Inrush Current: Below 30A at AC264V
- ◆ Output Voltage is shown below.

No.	Output	Voltage Rating (V)	Variable Range (V)	Voltage Accuracy (%) ^{*1}	Current Rating (A)	Ripple/Noise (mVp-p) ^{*2}
1	Vs	175	160-190	±5V *3	0.4~1.5	500/500
2	Va	60	50-65	±2V	0.01~2.5	300/300
3	5Vcntl	5.1	4.75~5.25	±5%	1.2~4	30/200
4	5V	5.1	4.75~5.25	±5%	0.5~4.5	50/200
5	V3 (SOUND)	17	-	±7%	0~0.7	100/400
		-17	-	±7%	0~0.7	100/400
6	33VT	33	-	±7%	1.5	100/400
7	12V	12	-	±5%	0.6	100/400
8	Vstb	5	-	±5%	1.5	50/200

Description of A/V(MAIN and SUB PCB) and POWER

Connector

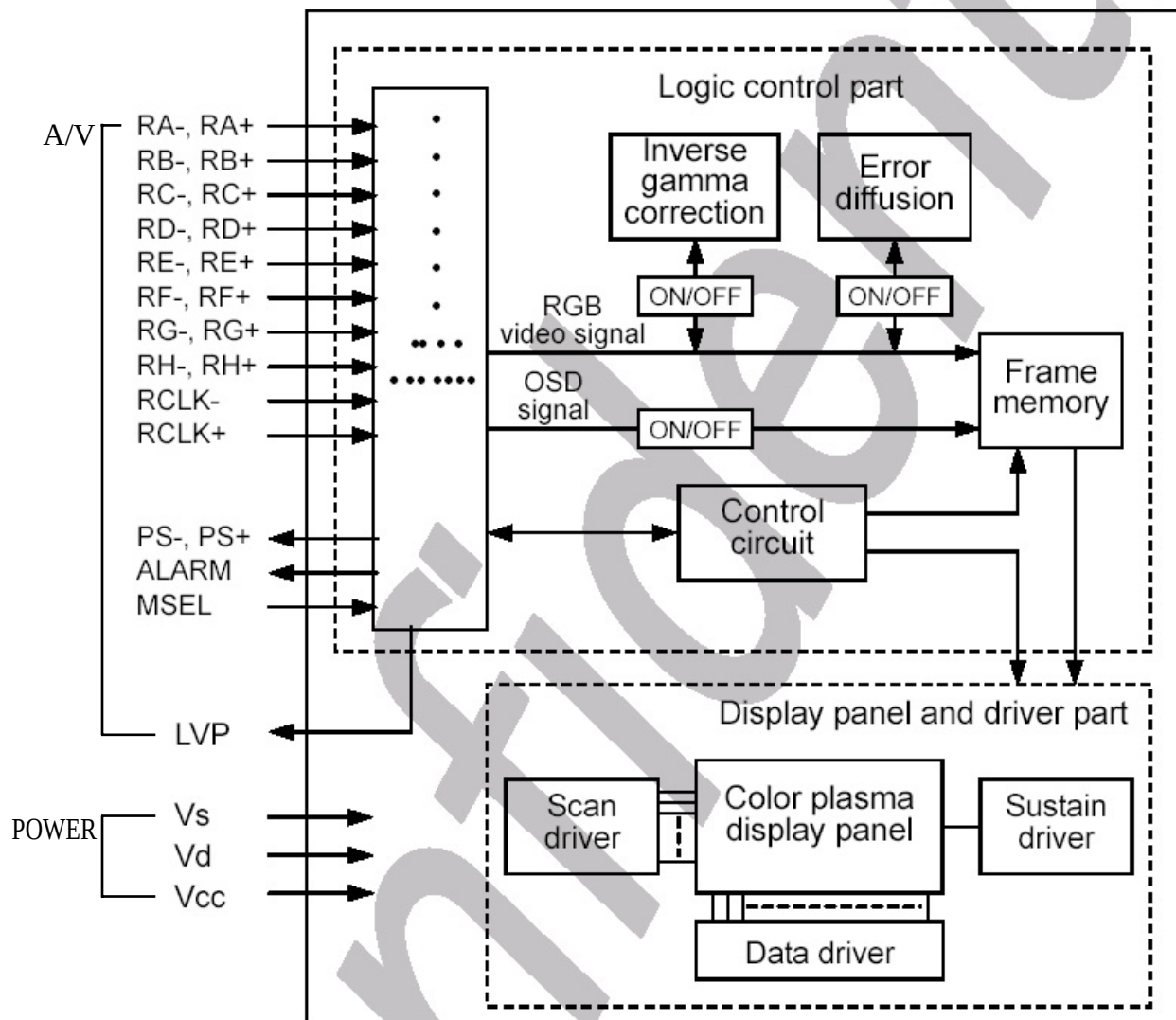
Connector number		CN806	CN805
Model name		B10P-VH	B4P-VH
Maker		JST	JST
The number of pins		10	4
Pin number	1	ALARM (LVP)	5Vcntl
	2	GND	5Vcntl
	3	GND	GND
	4	GND	GND
	5	GND	
	6	Vd	
	7	Vd	
	8	NC	
	9	Vs	
	10	Vs	

Connector number		CN803	CN804 (NOT USED)	CN801
Model name		YMW025-10R	YMW025-05R	YMW025-04R
Maker		YEONHO	YEONHO	YEONHO
The number of pins		10	5	4
Pin number	1	5V Stand-by	3.3V	33VT
	2	Power	3.3V	GND
	3	GND	GND	+17V
	4	GND	GND	GND
	5	5V	2.5V	-17V
	6	GND	2.5V	
	7	GND	GND	
	8	12V	GND	
	9	12V		
	10	NC		

- * CN806 is connected to CN301 of HIGH VOLTAGE PCB.
 CN805 is connected to CN302 of HIGH VOLTAGE PCB.
 CN803 is connected to PC103 of MAIN PCB.
 CN801 is connected to PC900 of SUB PCB.

Description of A/V(MAIN and SUB PCB) and POWER

4-4. Interface with PDP Module



< PDP Module >

5. SERVICE MODE

5.1 Checking initial menu data

(1) Check initial data of User Menu

1) Picture

- Mode : Normal

◆ BRIGHTNESS : 32

◆ CONTRAST : 48

◆ COLOR : 32

◆ Tint : 32 (CENTER) * Not displayed when input signal is PAL or SECAM

◆ Sharpness : 32

- Color Temp. : Normal

2) Sound

- Balance : 0 (CENTER)

- Effect : Off

- AVC : Off

- Mode : Normal

◆ 120 Hz : 0 (CENTER)

◆ 500 Hz : 0 (CENTER)

◆ 1.5 KHz : 0 (CENTER)

◆ 5 KHz : 0 (CENTER)

◆ 10 KHz : 0 (CENTER)

3) Screen Mode : 16:9

4) Features

- Background : Opaque

- Language : English

- Keypad Lock : Off

- Enhancer : ON

- Auto Power : Off

- Closed Caption :

◆ Caption Mode:CC1

◆ Caption Box : Black

- Time Setting

◆ Clock : — —:—

◆ Off Timer : Off

◆ Off Time : AM 12:00

◆ Wake Timer : Off

◆ Wake Time : AM 12:00

◆ Wake Ch. : 2

◆ Wake Vol. : 20

- ISM

◆ Pixel Shift : Off

◆ Low Bright : Off

- Parental Lock

- Initialize

SERVICE MODE

5) Channel(TV input only)

- Ch Mode : Cable
- Channel : 2
- Memory : Erase
- Fine Tune : 0
- Auto Search

5-2 Entering SERVICE MODE

To enter SERVICE MODE

Press “◀VOL” => “MUTE” => “DISPLAY” => “MUTE” BUTTON of Remote Controller

(1) Check initial data of Service mode

1) PW 181-1

- Sub Brt : 24
- Sub Cont : 8
- Bias R : 32
- Bias G : 32
- Bias B : 32
- Gain R : 14
- Gain G : 16
- Gain B : 16

2) PW 181-2

- DVI Brt : 16
- DVI Cont : 0
- Sharp Filter : Normal

3) VPC 3230

- Comm Brt : 139
- Comm Cont : 43
- Comm Peak : 3
- CVBS Color : 112
- CVBS Tint : 128
- Comp Brt : 196
- Comp Cont : 28
- Comp Cb : 23
- Comp Cr : 29
- Comp Tint : 32

4) 9883_G

- Bias R : 64
- Bias G : 64
- Bias B : 64
- Gain R : 128

SERVICE MODE

- Gain G : 128
- Gain B : 128
- 5) 9883_V
 - Bias Cr : 64
 - Bias Y : 60
 - Bias Cb : 64
 - Gain Cr : 128
 - Gain Y : 128
 - Gain Cb : 128
- 6) MDIN 150
 - Bright : 128
 - Contrast : 64
 - Color : 64
 - NR : Off
- 7) Enhncr
 - B&W : ON
 - FCT : ON
 - ACR : ON
 - Gamma : ON
 - Dither : ON
 - SEISAI : ON
- 8) MSP 34xx
 - Sc pScale : 21
 - FM pScale : 25
- 9) Misc
 - Tst Ptrn : AT
 - Tst Ptrn : MA
 - TV AT OFF : ON
- 10) Info (firmware version information)
- 11) Reset
 - Level 1
 - Level 2
 - Factory
- 12) Panel (NEC 42" SD)
 - 50Hz Mode : STD1
 - 60Hz Mode : STD1
 - Frame Conv : Off
 - Long Life : Off
 - Gamma : On
 - ED : On

SERVICE MODE

5-3. Description of SERVICE MODE Items

- 1) PW181-1 : Image processor control values. Mainly used to adjust White balance.
[Note] These values need to be adjusted only after replacing MAIN PCB. These values may vary from set to set. Therefore if these values are recorded before replacing MAIN PCB, you do not need to adjust WHITE BALANCE additionally.

 - (1) Sub Brt : For BRIGHTNESS adjustment (All inputs)
 - (2) Sub Cont : For CONTRAST adjustment (All inputs)
 - (3) Bias R : For R BRIGHTNESS adjustment (All inputs)
 - (4) Bias G : For G BRIGHTNESS adjustment (All inputs)
 - (5) Bias B : For B BRIGHTNESS adjustment (All inputs)
 - (6) Gain R : For R CONTRAST adjustment (All inputs)
 - (7) Gain G : For G CONTRAST adjustment (All inputs)
 - (8) Gain B : For B CONTRAST adjustment (All inputs)

- 2) PW181-2 : Additional PW181 control values
[Note] The following values do not need to be adjusted after replacing MAIN PCB. Therefore you do not need to change initial values..

 - (1) DVI Brt : For BRIGHTNESS adjustment (DVI)
 - (2) DVI Cont : For CONTRAST adjustment (DVI)
 - (3) Sharp Filter : For SHARPNESS adjustment (Video, S-video)

- 3) VPC3230 : VIDEO DECODER control values. Used to adjust picture quality of VIDEO/S-VIDEO inputs.
[Note] The following values do not need to be adjusted after replacing MAIN PCB. Therefore you do not need to change initial values.

 - (1) Comm Brt : For BRIGHTNESS adjustment (Video, S-video, Caption)
 - (2) Comm Cont : For CONTRAST adjustment (Video, S-video, Caption)
 - (3) Comm Peak : For SHARPNESS adjustment (Video, S-video, Caption)
 - (4) CVBS Color : For COLOR adjustment (Video, S-video)
 - (5) CVBS Tint : For TINT adjustment (Video, S-video)
 - (6) Comp Brt : For BRIGHTNESS adjustment (Caption only)
 - (7) Comp Cont : For CONTRAST adjustment (Caption only)
 - (8) Comp Cb : For Color (Cb) adjustment (Caption only)
 - (9) Comp Cr : For Color (Cr) adjustment (Caption only)
 - (10) Comp Tint : For TINT adjustment (Caption only)

- 4) 9883_G : Graphic port A/D converter control values. Used to adjust picture quality of PC input.
[Note] The following values do not need to be adjusted after replacing MAIN PCB.

SERVICE MODE

- (1) Bias R : For R BRIGHTNESS adjustment (PC)
- (2) Bias G : For G BRIGHTNESS adjustment (PC)
- (3) Bias B : For B BRIGHTNESS adjustment (PC)
- (4) Gain R: For R CONTRAST adjustment (PC)
- (5) Gain G: For G CONTRAST adjustment (PC)
- (6) Gain B: For B CONTRAST adjustment (PC)

- 5) 9883_V : Video port A/D converter control values. Used to adjust picture quality of Component inputs.

[Note] The following values do not need to be adjusted after replacing MAIN PCB. Therefore you do not need to change initial values.

- (1) Bias Cr : For Cr BRIGHTNESS adjustment (Component)
- (2) Bias Y : For Y BRIGHTNESS adjustment (Component)
- (3) Bias Cb : For Cb BRIGHTNESS adjustment (Component)
- (4) Gain Cr : For Cr CONTRAST adjustment (Component)
- (5) Gain Y : For Y CONTRAST adjustment (Component)
- (6) Gain Cb : For Cb CONTRAST adjustment (Component)

- 6) MDIN150 : Used to adjust DEINTERLACE performance. Affect component & video input.

[Note] The following values do not need to be adjusted after replacing MAIN PCB. Therefore you do not need to change initial values.

- (1) Bright : For BRIGHTNESS adjustment (Video, S-video, Component)
- (2) Contrast : For CONTRAST adjustment (Video, S-video, Component)
- (3) Color : For COLOR adjustment (Video, S-video, Component)
- (4) NR : Noise Reduction Filter adjustment (Video, S-video, Component)

- 7) Enhncr : Picture Quality Enhancer. Used to adjust picture quality for all inputs.

[Note] The following values do not need to be adjusted after replacing MAIN PCB. Therefore you do not need to change initial values.

- (1) B&W : Black & White Stretch (ON: enables B Emph, W Emph, and G Emph)
- (2) FCT : Favorite Color Technology
- (3) ACR : Accurate Color Reproduction
- (4) Gamma : Video Inverse Gamma(=1.47) Correction
- (5) Dither : Error Diffusion
- (6) SEISAI : Random dither pattern masking

- 8) MSP34xx : Sound processor

[Note] The following values do not need to be adjusted after replacing MAIN PCB. Therefore you do not need to change initial values.

- (1) Sc pScale : Prescale adjustment for external input(Video, Component, PC, DVI etc.)
- (2) FM pScale : FM/AM prescale adjustment

SERVICE MODE

9) MISC

- (1) TST PTRN AT : Cycled patterns from R G B WH every 1 minute automatically.
- (2) TST PTRN MA : Cycled patterns from BK WH R G B by pressing volume up key
- (3) TV AT OFF : When in TV mode and no signal is detected for 30 min, the set is turned off automatically.

10) INFOR : MICOM(firmware) version information

(year 4 digits, month 2 digits, date 2 digits and time 4 digits : e.g. 200409221030)

11) RESET

- (1) LEVEL 1: Reset all values (service mode & user menu).
- (2) LEVEL 2: Reset all except PW181-1 values
- (3) FACTORY: Reset user menu values

12) PANEL

- (1) 50Hz Mode :
 - STD1 : Standard Mode 1 (Peak Luminance 100%, False Contour Good)
 - STD2: Standard Mode 2 (Peak Luminance 100%, False Contour Bad)
 - HIQ1: High Image Quality Mode 1 (Peak Luminance 70%, False Contour Very Good)
 - HIQ2: High Image Quality Mode 2 (Peak Luminance 70%, False Contour Good)
- (2) 60Hz Mode :
 - STD1: Standard Mode 1 (Peak Luminance 100%, False Contour Good)
 - STD2: Standard Mode 2 (Peak Luminance 100%, False Contour Bad)
 - HIQ1: High Image Quality Mode 1 (Peak Luminance 70%, False Contour Very Good)
 - HIQ2: High Image Quality Mode 2 (Peak Luminance 70%, False Contour Good)
- (3) Frame Conv :
 - Off: Input Vsync Frequency = Panel Display Vsync Frequency
 - On: Panel Display Vsync Frequency Fixed (=60Hz)
- (4) Long Life : Safety Mode(Low Peak Luminance)
- (5) GAMMA : Panel Inverse Gamma Correction
- (6) ED : Panel Error Diffusion

6. Adjusting Method

6-1. WHITE BALANCE Adjustment

- 1) Apply 5 Step Gray Scale pattern to Video input terminal (Pattern generator: MIK 7253S)

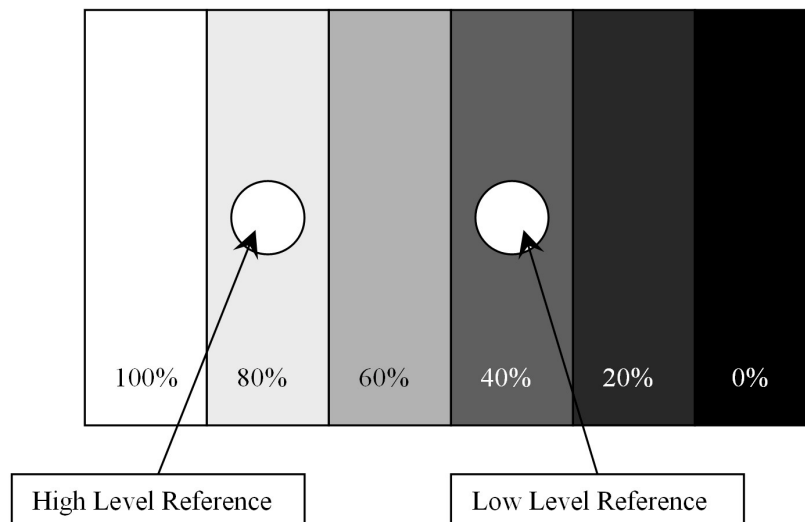


Figure 6-1 Step Gray Scale Pattern

- 2) Check initial data from USER CONTROL (refer to 5-1)
- 3) In order to start Service mode, press button in following order “◀Vol -> Mute -> Recall (Display) -> Mute” of the remote control. And then select PW181-1 for checking initial data of the SERVICE MODE (refer to 5-2).
- 4) Attach the sensor of White Balance Meter (CA-100) to the 80% white level of the screen.
- 5) Adjust White Balance by controlling R, G, B GAIN.
 - Control R, G, B GAIN values so that the ranges are within DP (Default Value) ± 10 . If the gains are deviated from the range, the SET is disqualified.
 - Set color coordinate to $x=0.285 \pm 0.005$, $y=0.275 \pm 0.005$, and the Color Temperature to greater than $10,000^{\circ}\text{K}$.
- 6) Attach the sensor of White Balance Meter to 40% of white level on the screen
- 7) Adjust White Balance by varying the values of R,G, B BIAS.
 - Control R, G, B BIAS values so that the ranges are within “Default Value” ± 5 . If deviate from the range, classify the SET disqualified.
 - Set color coordinate to $x=0.285 \pm 0.005$, $y=0.285 \pm 0.005$.
- 8) Repeat from 4) to 7) until color coordinate is $x=0.285 \pm 0.005$, $y=0.275 \pm 0.005$, and then adjust Sub Contrast for that the luminance is above or equal to 150 Cd/m^2 when the sensor of White Balance Meter is attached to 100% of white level on the screen.
- 9) To exit the Service mode, press Menu button of the remote control.

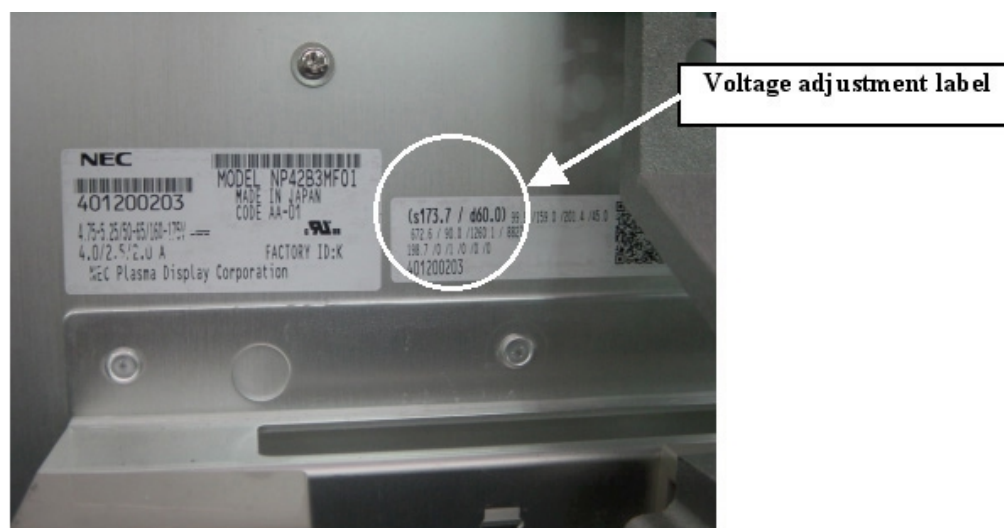
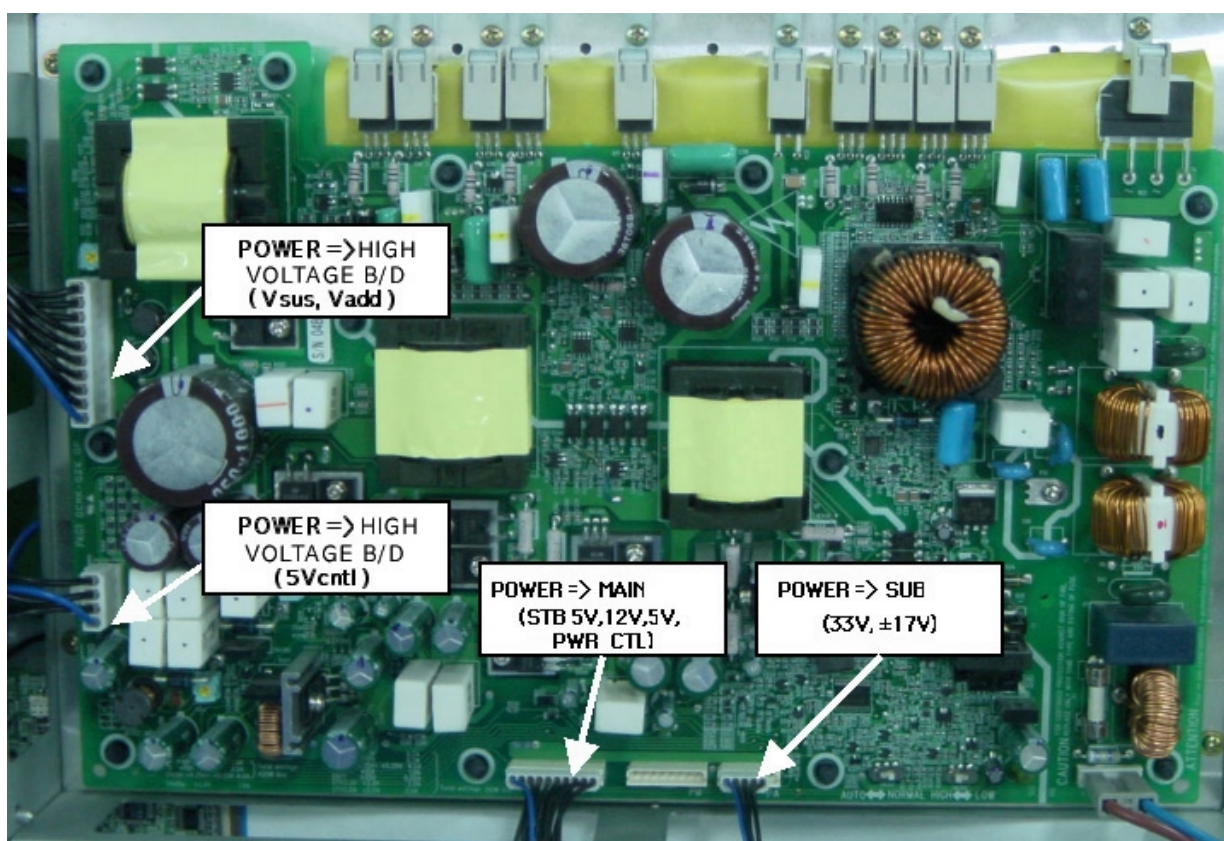
Adjusting Method

6-2. POWER ADJUSTMENTS

- ◆ Video pattern condition: 100 IRE Full White Pattern
- ◆ Power Adjustment is controlling the panel values set by module maker previously. If there is problem after power adjustment, classify as a defect and contact PDP module maker.

1. Vs (Vsus Voltage): Sustain Voltage

- ◆ Measurement equipment : Digital Volt Meter (DC Volt mode)
- ◆ Adjusting TP : TP204 (See Picture 6-2)
- ◆ Adjusting Voltage : The voltage which is written at upper center of DATA BAR in PDP Module.
(Typical Voltage: 175 V, See Picture 6-1)

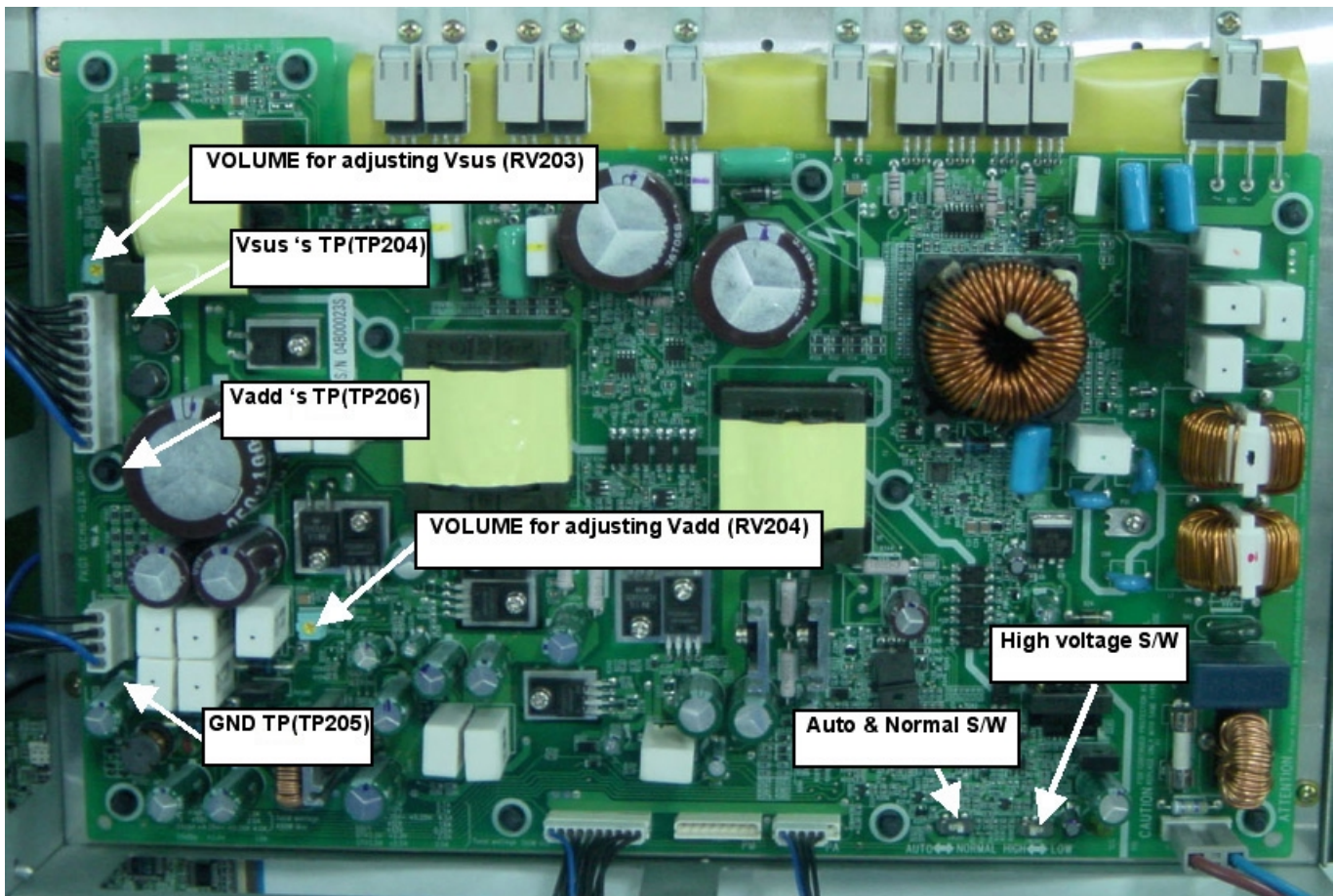


Picture 6-1. Power Connection and Voltage Adjustment Label

Adjusting Method

2. Vd (Vadd Voltage) : DATA Input Voltage

- ◆ Measurement equipment : Digital Volt Meter (DC Volt mode)
- ◆ Adjusting TP : TP206 (See Picture. 6-2)
- ◆ Adjusting VOLUME:
- ◆ Adjusting Voltage : The voltage which is written at upper center of DATA BAR in PDP Module.
(Typical Voltage: Picture - Picture. 6-2)



Picture. 6-2 Power Adjustment Points

< Note >

1. Auto & Normal S/W

This switch is used to test power board therefore for normal operation always set it to “NORMAL”.
Do not touch while operating

2. High voltage S/W

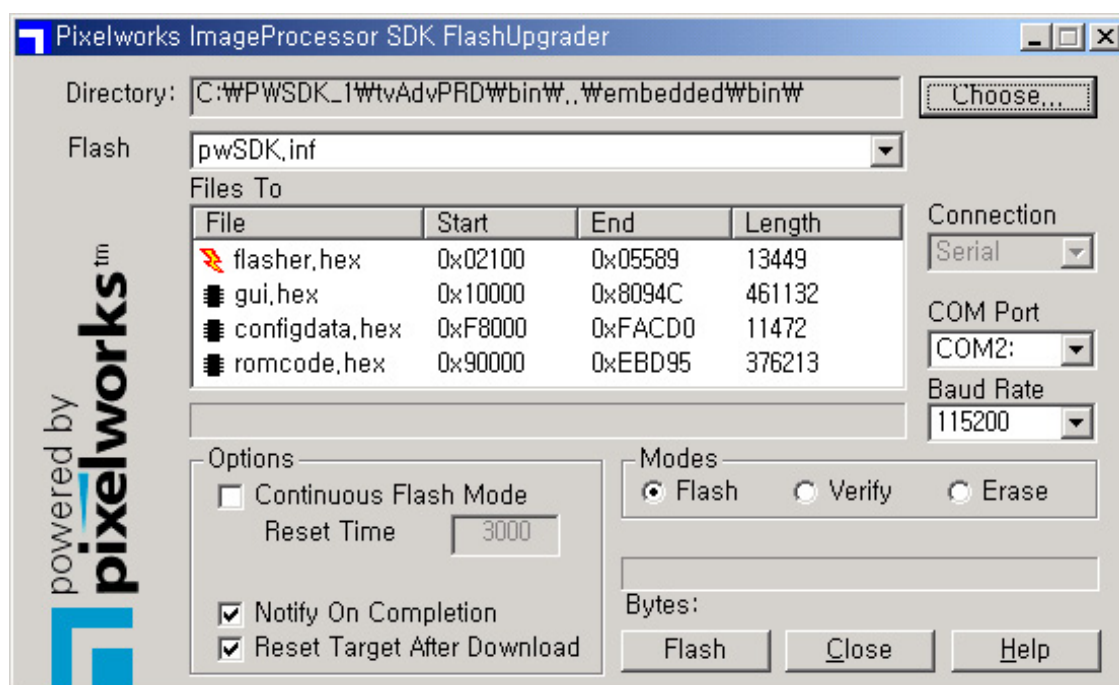
Do not touch while operating

3. When replacing a power board make sure to check these switches.

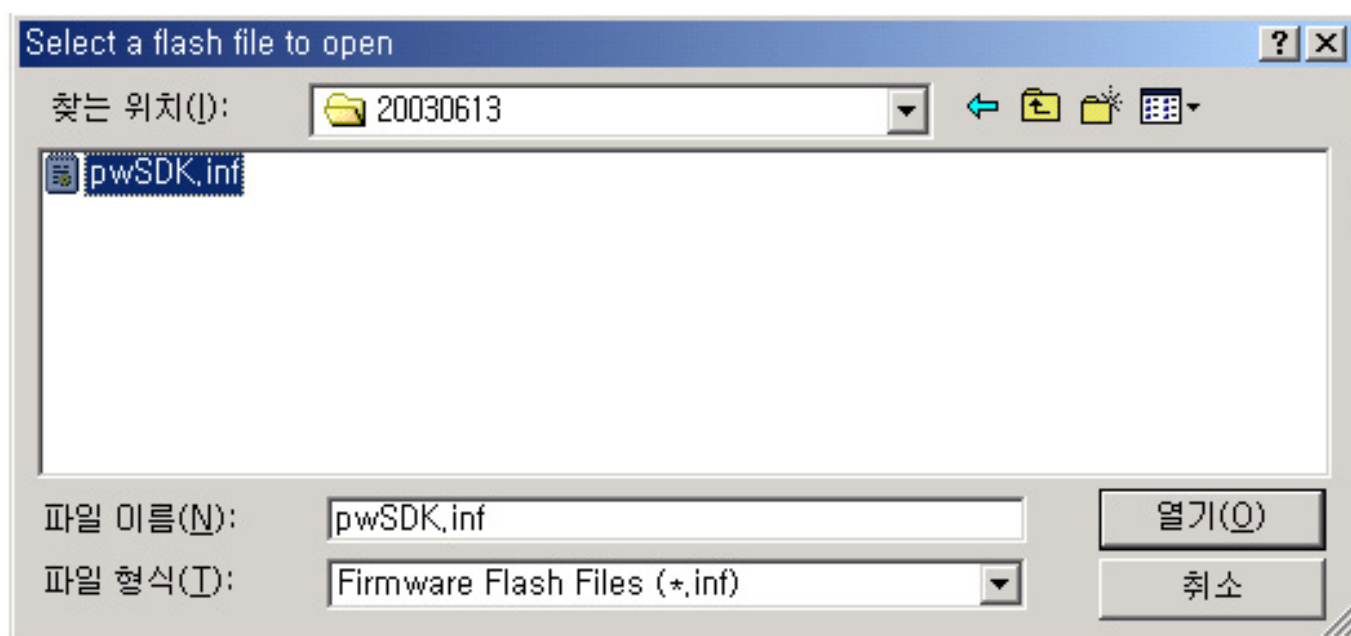
- High voltage S/W -> “HIGH”
- Auto & Normal S/W -> “NORMAL”

7. SOFTWARE UPGRADE Method

1. Check whether MAIN PCB is connected to SUB PCB(JP117 to JA109).
2. Connect 9-PIN serial cable to the serial port of the computer.
3. Connect the opposite end of the serial cable to RS-232C port of SUB PCB.
4. Run Flashupgrader.exe in the PC to excute the program as shown below.

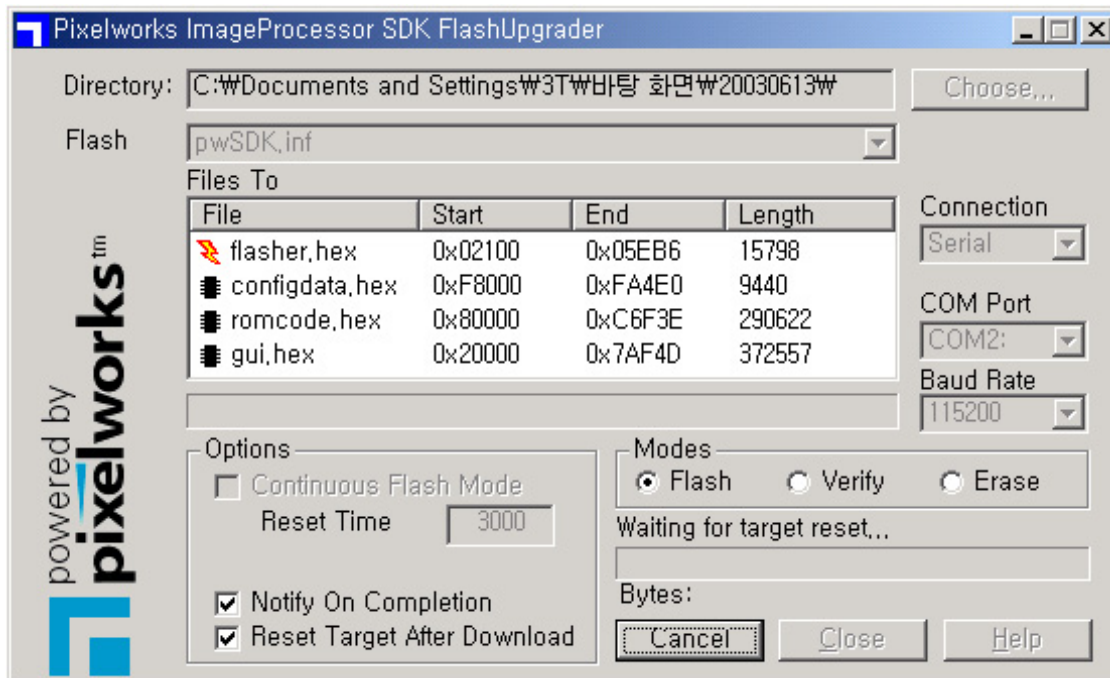


5. Select current Upgrade file
 - Click "Choose..." button to select the file you want to upgrade.
 - Select the file (pwSDK.inf) that you want to upgrade.

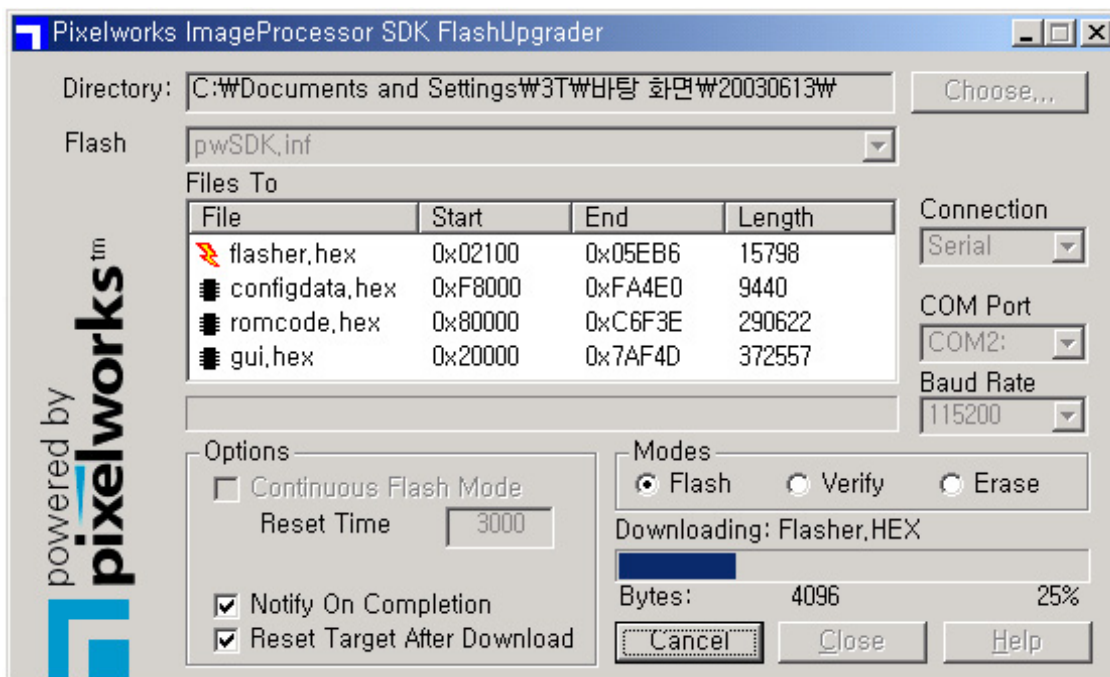


SOFTWARE UPGRADE Method

6. Select correct COM Port and Baud Rate(115200) as shown below. Then press Flash button to finish setup.

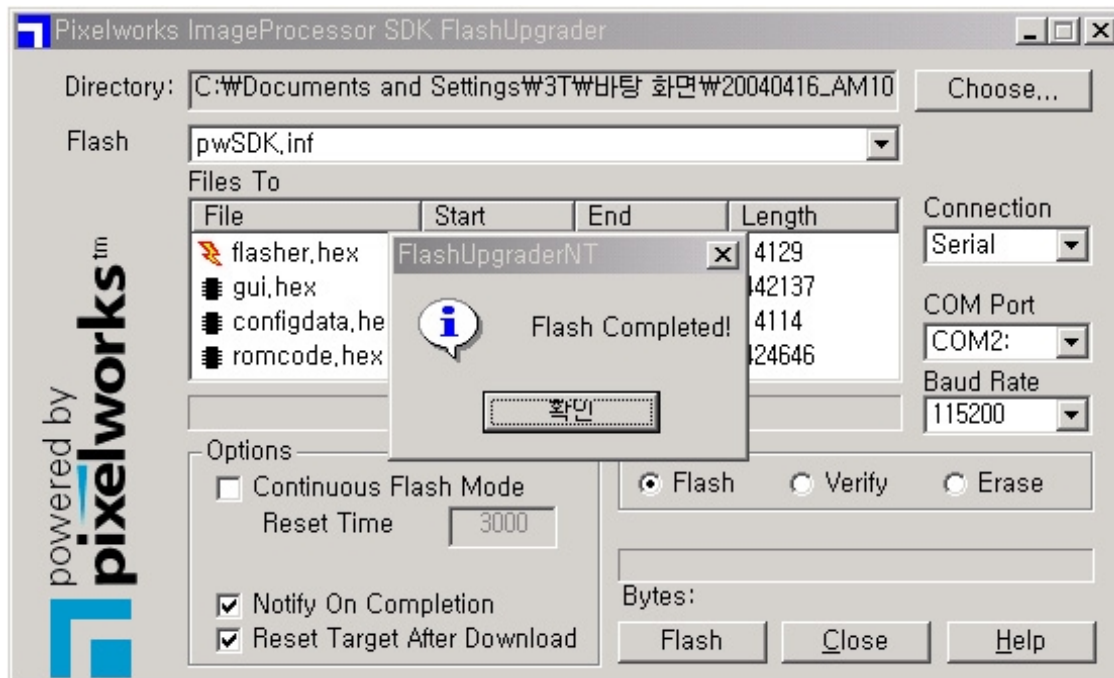


7. Turn on the ac power and then upgrade program will start the download as shown below.



SOFTWARE UPGRADE Method

8. When the upgrading is complete, a window (below) will be opened. Press “Finish” button to complete the process.



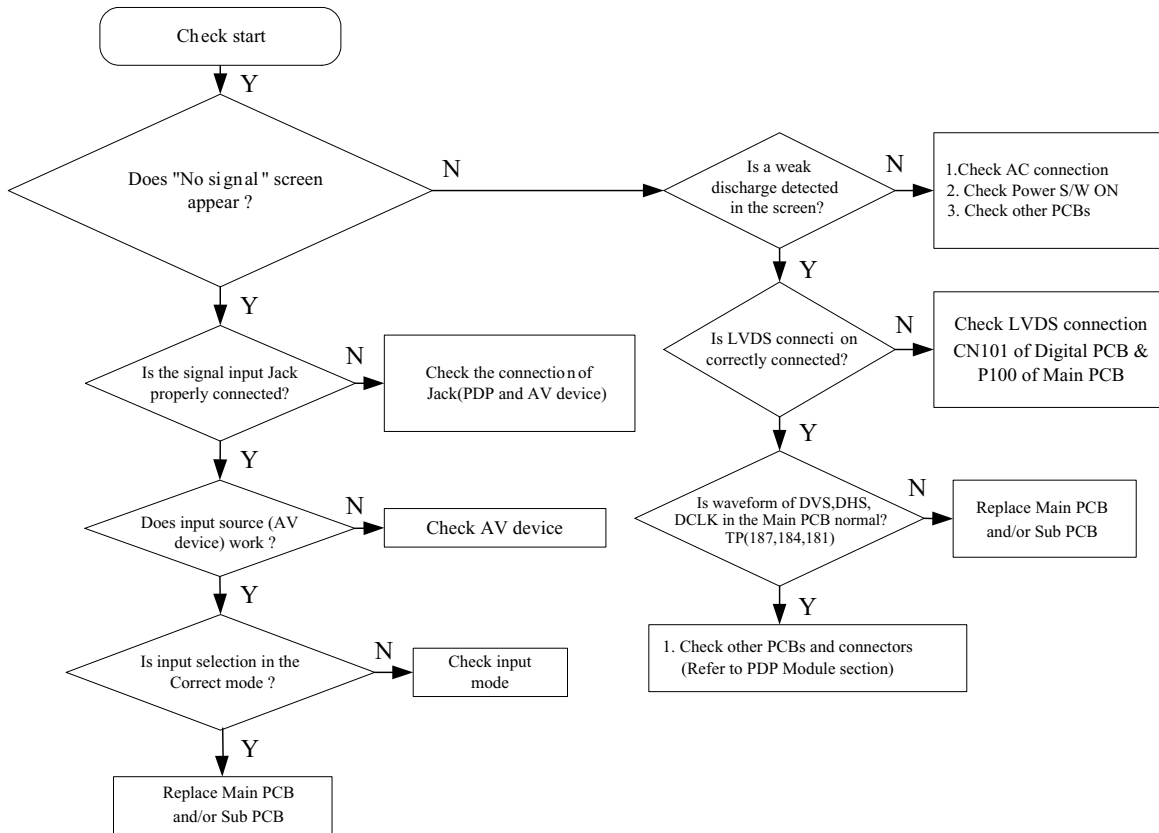
8. Main PCB Trouble Diagnosis

8-1. MAIN & SUB PCB Trouble Diagnosis

[NOTE] Refer to “PDP MODULE” section for trouble diagnosis other than MAIN, SUB and POWER PCB.

1. Common checking process when “No signal” or “No raster”

(No signal: OSD is working but no images are displaying, No raster: Not even OSD is displaying)



2. When “No signal” in Video, S-VIDEO, and Component modes.

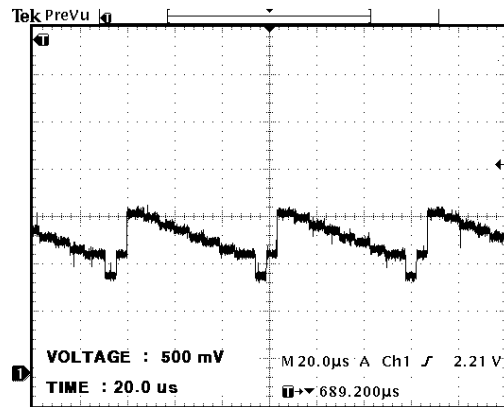
(1) First check if PC input is working.

- If PC is not working replace MAIN PCB.
- For detail examination, with an oscilloscope check TP188, TP184 and TP187 signal explained in A/V block section.
- If TP188, TP184 or TP187 signal does not appear, replace MAIN PCB.

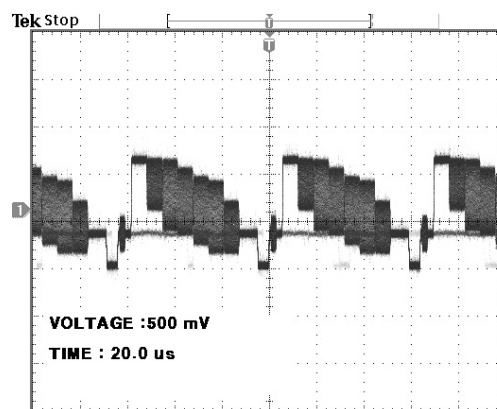
(2) Checking waveforms with COLOR BAR pattern(for detail examination only)

Main PCB Trouble Diagnosis

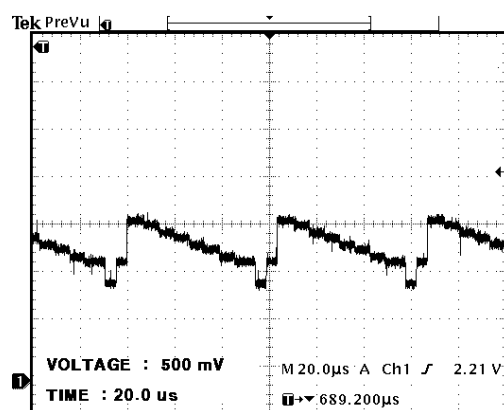
- ◆ When Y Cb Cr input : TP261 located in the center of the PCB near IC121.



- ◆ COMPOSITE Input : Check Positive polarity of CE203 located near IC132.



- ◆ S- VHS input : Check Negative polarity of CE284 located near IC159.



→ If above signals do not appear, MAIN PCB needs to be replaced.

(3) With Video or S-Video inputs

Check TP138(V sync), TP139(H sync)

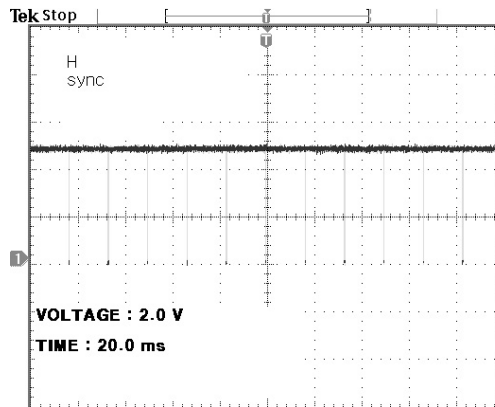
→ If signals do not appear, replace MAIN PCB.

Main PCB Trouble Diagnosis

(4) With Component inputs

Check TP136(V sync), TP135(H sync)

→ If signals do not appear, replace MAIN PCB.



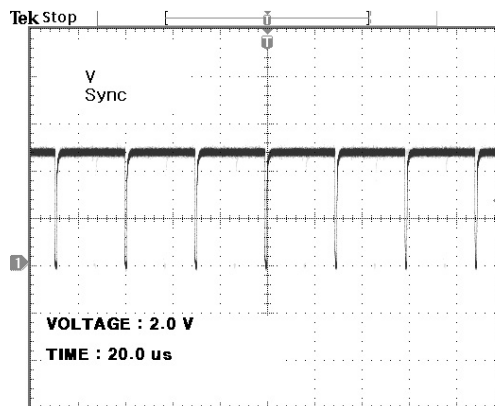
3. When DTV (1080i, 720P, 480P) signal do not appear on screen

(1) Input PC or VIDEO signal and see if PC or VIDEO images are displaying.

→ If “no signal”, check TP188, 187 and 184.

→ If DCLKB, DHS and DVS signal do not appear, replace MAIN PCB.

(2) Check TP136(V sync), TP135(H sync) <when 1080i >



→ If above signals do not appear, replace MAIN PCB.

4. When PC signal do not appear on screen

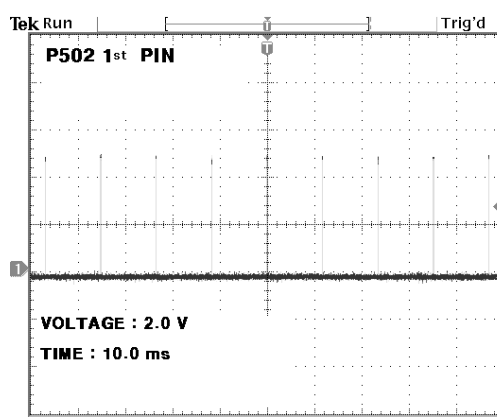
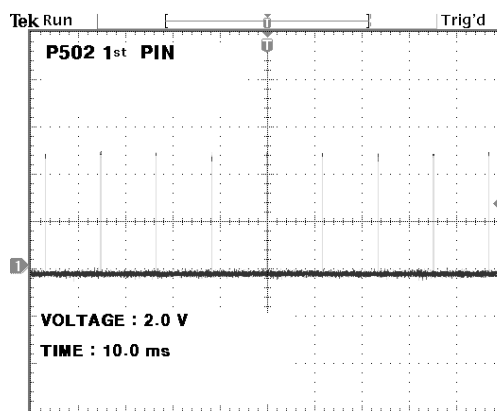
(1) Input DTV or VIDEO signal and see if DTV or VIDEO images are displaying.

→ If “No signal”, check TP188, 184 and 187.

→ If TP188, 184 and 187 signal do not appear, replace MAIN PCB.

(2) Check TP124 (V SYNC), TP125 (H SYNC) (when 800 X 600).

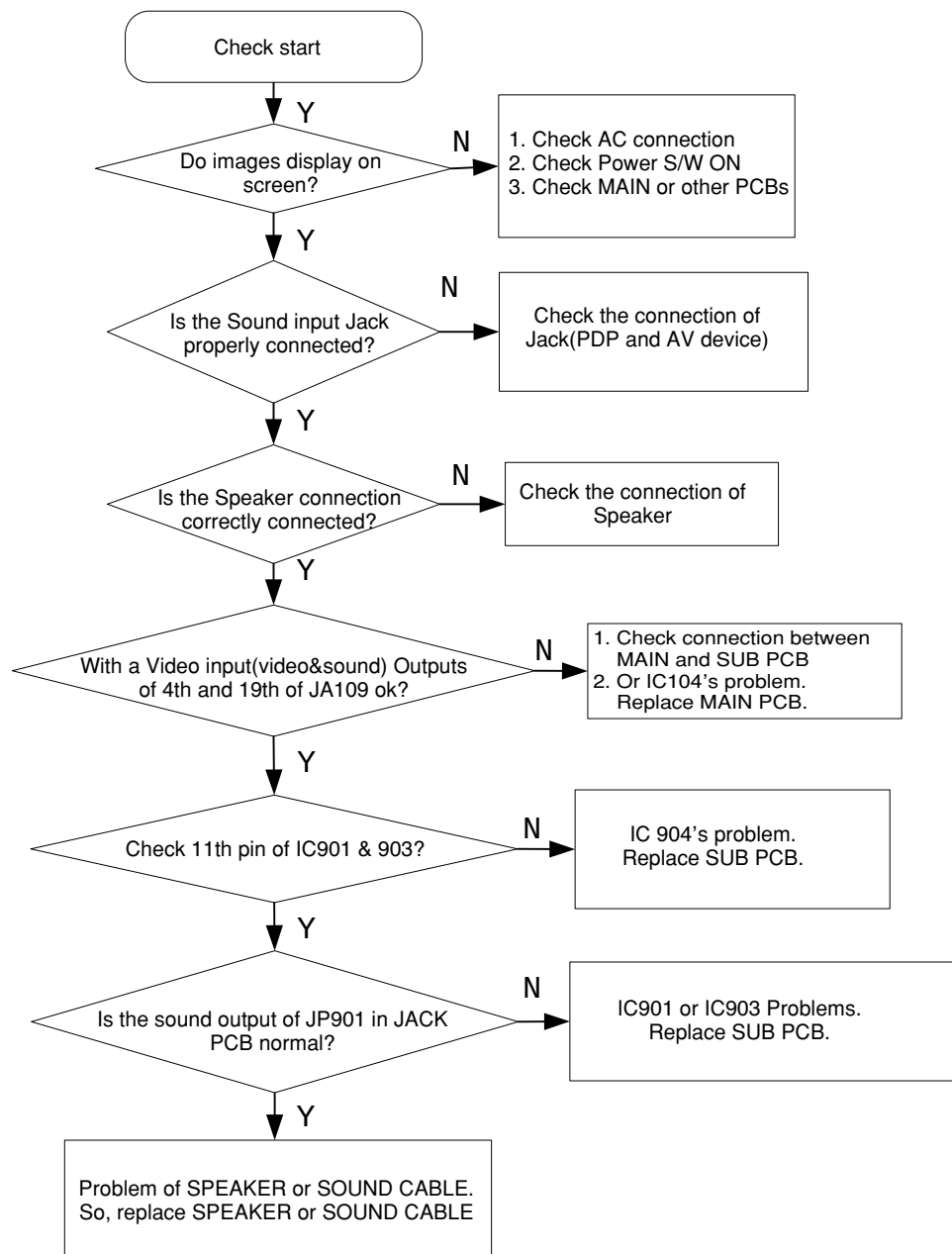
Main PCB Trouble Diagnosis



→ If above signal do not appear, replace MAIN PCB.

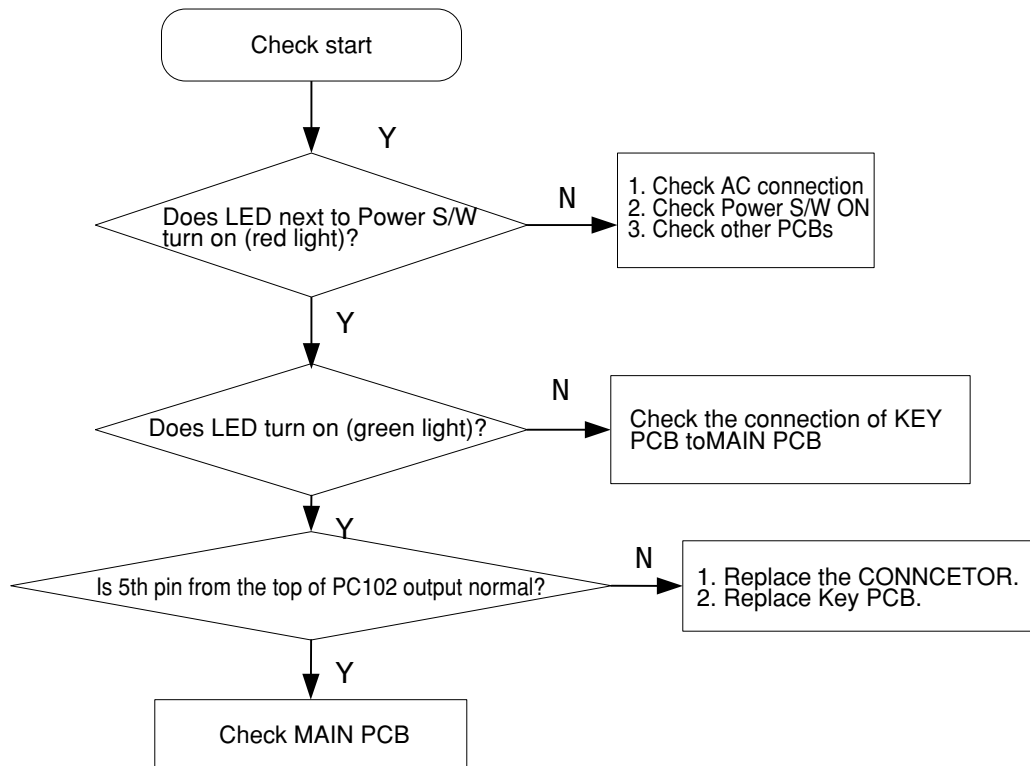
Main PCB Trouble Diagnosis

5. When No Sound



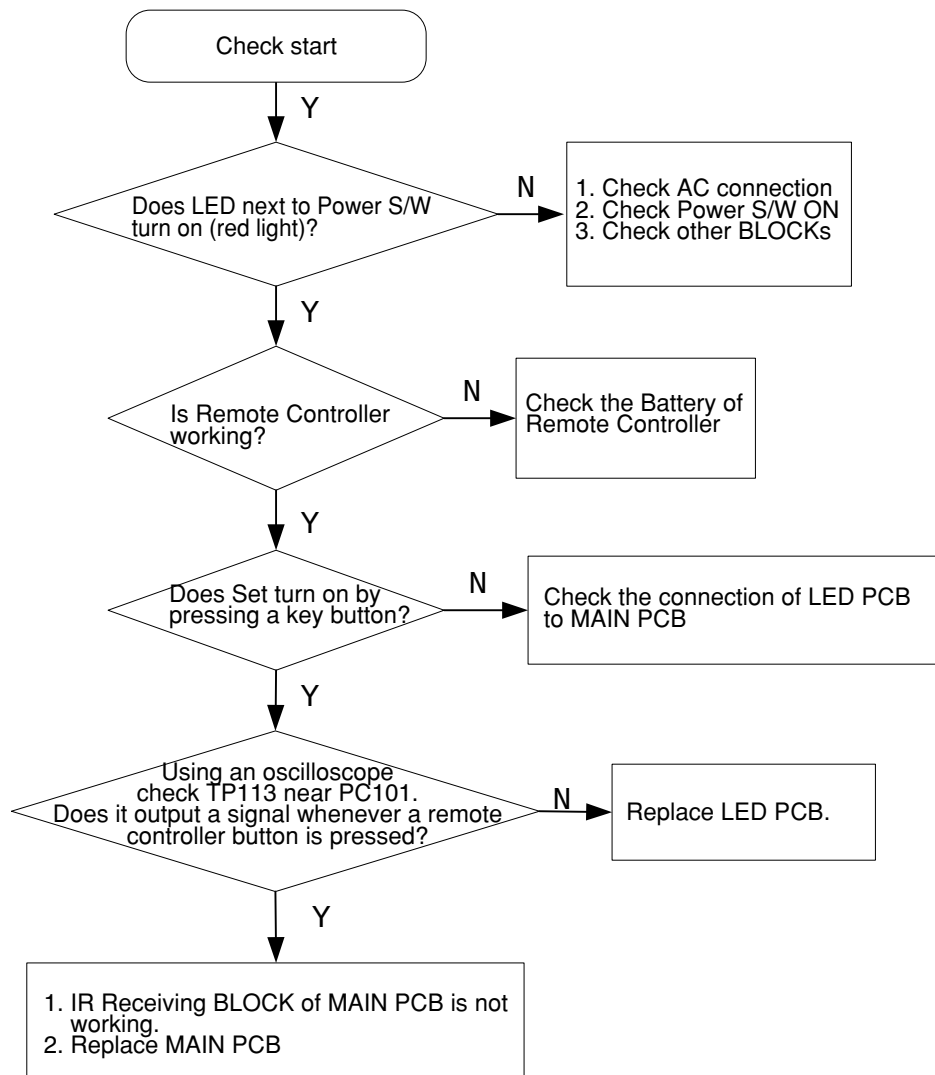
Main PCB Trouble Diagnosis

6. When Key does not operate



Main PCB Trouble Diagnosis

7. When Remote Controller does not operate



8-2. POWER PCB Trouble Diagnosis

- ◆ After checking High Voltage Board / Scan Relay Board / Data Relay Board (refer to II. PDP MODULE), and the set still does not operate, then check if the following Power PCB's Trouble Symptoms appear.
 - After unplugging Power Connectors of Power PCB (CN806 and CN805) and checking remaining voltage, there still exist several tens of remaining voltage.
 - When output condition of Power PCB is set to low-voltage, output voltage table lists 3~7 are NOT normal. Or when set to high-voltage, output voltage table list 1~2 are NOT normal. (Refer to 4-3)
 - When output condition of Power PCB is set to low-voltage, output voltage table lists 3~7 are normal. But when set to high-voltage, output voltage table list 1~2 are NOT normal. (Refer to 4-3)
 - After turning on the PDP set with Remote Controller when output condition of Power Module is set to high-voltage, the LED turn "Green" but the "Power Shut Down" happens after 2~3 seconds.
- ◆ If high voltage (V_{sus} , V_{add}) measured from Power PCB is different from that of optimum adjusting voltage label, re-adjust the voltages referring to "I. 6-2. POWER Adjustments"

9. TROUBLE DIAGNOSIS

[NOTE] Refer to “PDP MODULE” section for module diagnosis.

* Refer to Chapter II for Symptoms of other parts with exception of MAIN, SUB PCB and POWER PCB Trouble.

9-1. Facts you must know when trouble diagnosing or repairing

- (1) Trouble diagnosing and repairing of set mean find out which PCBs or blocks are not working and replace them with new PCBs. Repairing the broken PCBs are not necessary. Keep the broken PCBs and return them to service center or R&D center.
- (2) This TROUBLE DIAGNOSIS list only contains representative and simple PCB trouble diagnosis and Module Exchange method. Therefore, if you find Sets that are difficult to diagnose or to repair, contact R&D center.
- (3) Basic TROUBLE DIAGNOSIS procedure
Check problem Symptoms -> Open BACK COVER -> Trouble Diagnosis e Replace broken PCB
-> Adjust new PCB module -> HEATRAN (for at least 30 minutes, input TEST PATTERN FULL WHITE), full FUNCTION test -> Repair Complete.
- (4) Required equipments for trouble diagnosis
 - DIGITAL MULTIMETER (User Mode : measure DC VOLTAGE, measure DIODE VOLTAGE, SHORT-OPEN TEST)
 - Screwdriver (or electric screwdriver), plastic adjusting tool
 - Oscilloscope (for detailed examination only)
- (5) Each BLOCK operations explained in this manual include OSCILLOSCOPE waveforms, but these are for reference only and utilizing them to repair PCBs is not necessary.
- (6) Before replacing PCBs, you MUST turn the AC Switch “OFF”.
- (7) After replacing High Voltage Board, POWER, and MAIN & SUB PCB, extra adjustment might be needed. (Refer to I. 6. Adjusting Method)
- (8) After the set is repaired, leave BACK COVER open for followings. Run HEATRAN for at least 30 minutes by displaying TEST PATTERN (FULL WHITE) of SERVICE MODE (Refer to Service Manual I.5. Service Mode). Check the screen conditions and basic functions (remote control operation etc.).
- (9) After BACK COVER is closed, redo HEATRAN for at least one hour with FULL WHITE input using TEST PATTERN of SERVICE MODE. Check the screen conditions and basic functions.

9-2. Typical Symptoms of PCB problem or bad Connection

- (1) Symptoms of POWER PCB Trouble
 - <Symptom.1> Not even a weak discharge detected on the screen.
 - <Symptom.2> Discharge on the screen is unstable
 - <Symptom.3> Set is making unusual noise
 - <Symptom.4> POWER SHUT DOWN occur (refer to Service Manual I. 9-3)

TROUBLE DIAGNOSIS

(2) Symptoms of MAIN or SUB PCB Trouble

- <Symptom.1> Only a weak discharge shows on the screen, but it is displaying No images.
- <Symptom.2> Images are abnormal
- <Symptom.3> Particular input signal (Video, PC or Component etc.) does not work.
- <Symptom.4> No SOUND
- <Symptom.5> Occasionally, set does not operate normally. Turning off and on the AC power make the set to operate normal again.
- <Symptom.6> Remote Control or KEY does not work.
- <Symptom.7> POWER SHUT DOWN occur (refer to Service Manual I. 9-3)

(3) Representative Symptoms caused by bad Connection between PCBs.

[Note] Dust or extraneous materials may cause bad connections. Most of the time, applying soft brush, AIR FRESHER, or breath to clean dust or extraneous materials can solve it. And then reassemble the Connector.

9-3. Trouble Diagnosis and Repairing Method for Representative Symptoms

(1) When POWER SHUT DOWN occurs

<1> Definition of “SHUT DOWN”

- While LED color is green, POWER PCB does not make any operating noise. (Red: STAND BY, Green: Operating)
- When the set is turned on power relay does not operate normally, and POWER PCB does not make any operating noise.

<2> Trouble Repairing Procedure

- As shown in Fig. 5, first check whether “LOW VOLTAGE” part or “HIGH VOLTAGE” part has problems.
- If “LOW VOLTAGE” part’s problem is detected, diagnose and repair the SET as shown in Fig. 6.
- If “HIGH VOLTAGE” part’s problem is detected, diagnose and repair the SET as shown in Fig. 6.
- <Caution1> When disconnecting/connecting connectors, you MUST turn “OFF” the AC power and check the direction and position of the connectors before working.
- <Caution2> Whenever you reassemble connectors connecting High Voltage Board and POWER PCB(CN805, CN806), remaining voltage still exists in the POWER PCB could cause electric shock and damage the set. Therefore always reassemble the connectors several minutes after AC power is off. To be more careful, using a MULTIMETER you should check to see if Vsus is less than 10V and then connect connectors.

TROUBLE DIAGNOSIS

(2) When weak Discharge exists on screen but “OSD screen” can not be seen

<1> Definition of this symptom

- When the set is turned on, screen is BLACK but Weak Discharge (luminescence) exists.
- OSD does not show on screen and the set does not respond to remote controller or KEY panel buttons.

<2> PCB CHECK PRIORITY

- MAIN PCB, SUS PCB

<3> Repairing Procedure

- Check LVDS cable (MAIN PCB to DIGITAL PCB) first and then other connectors connecting MAIN PCB. If this does not fix the problem replace MAIN PCB.

TROUBLE DIAGNOSIS

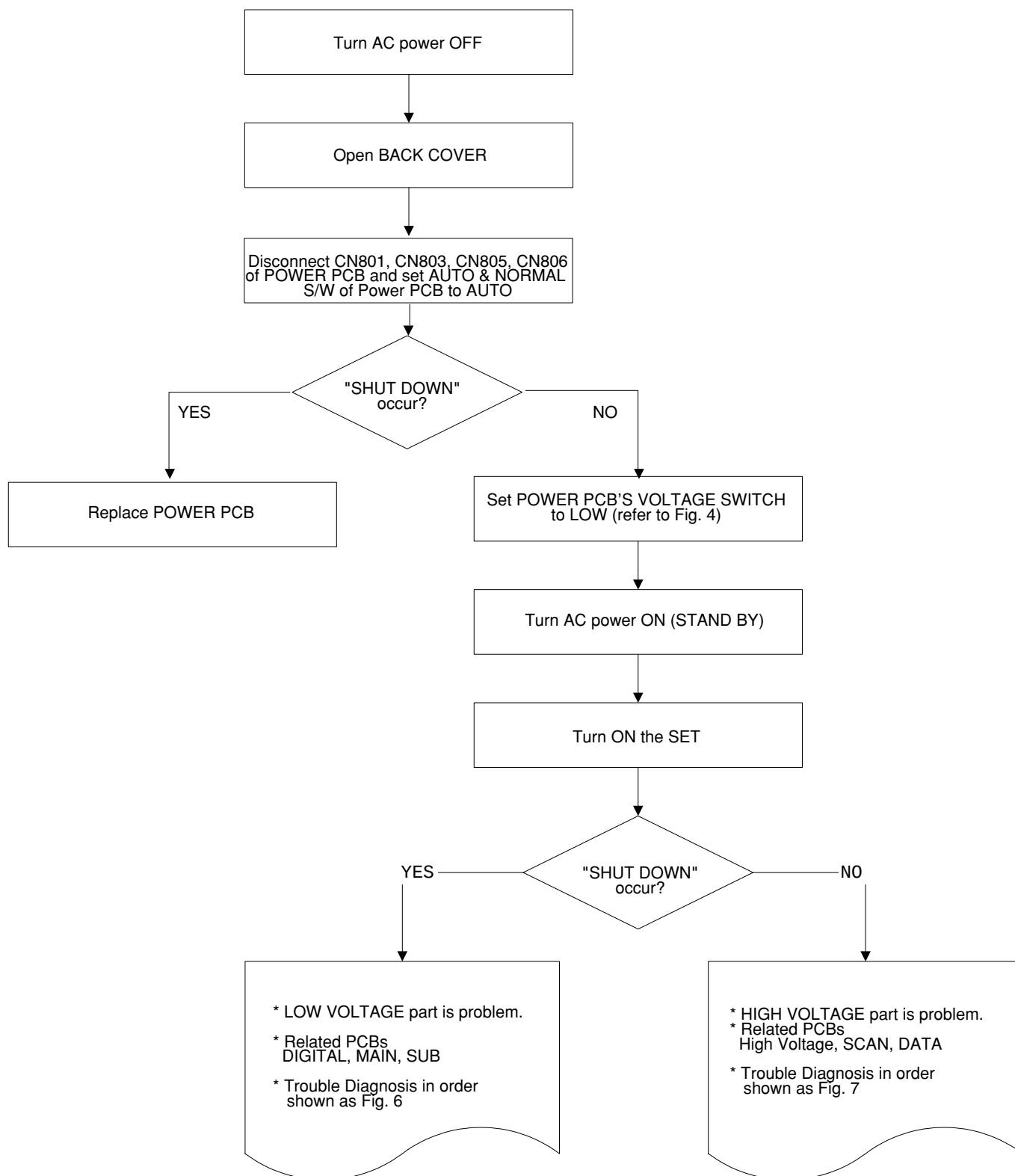


Fig. 5 Trouble Diagnosis Flow when “SHUT DOWN” occurs

TROUBLE DIAGNOSIS

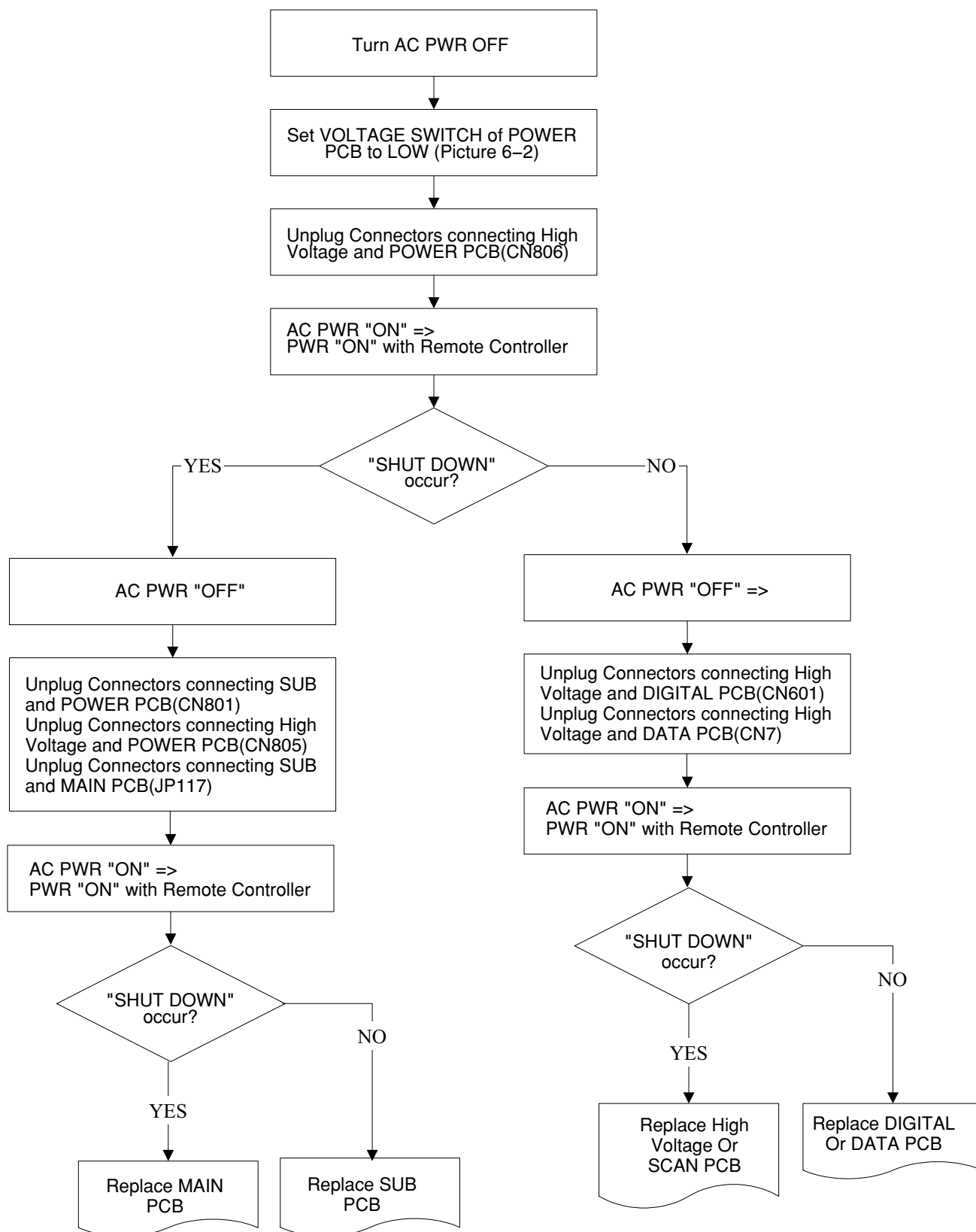


Fig. 6 Trouble Diagnosis Flow when LOW VOLTAGE "SHUT DOWN" occurs

TROUBLE DIAGNOSIS

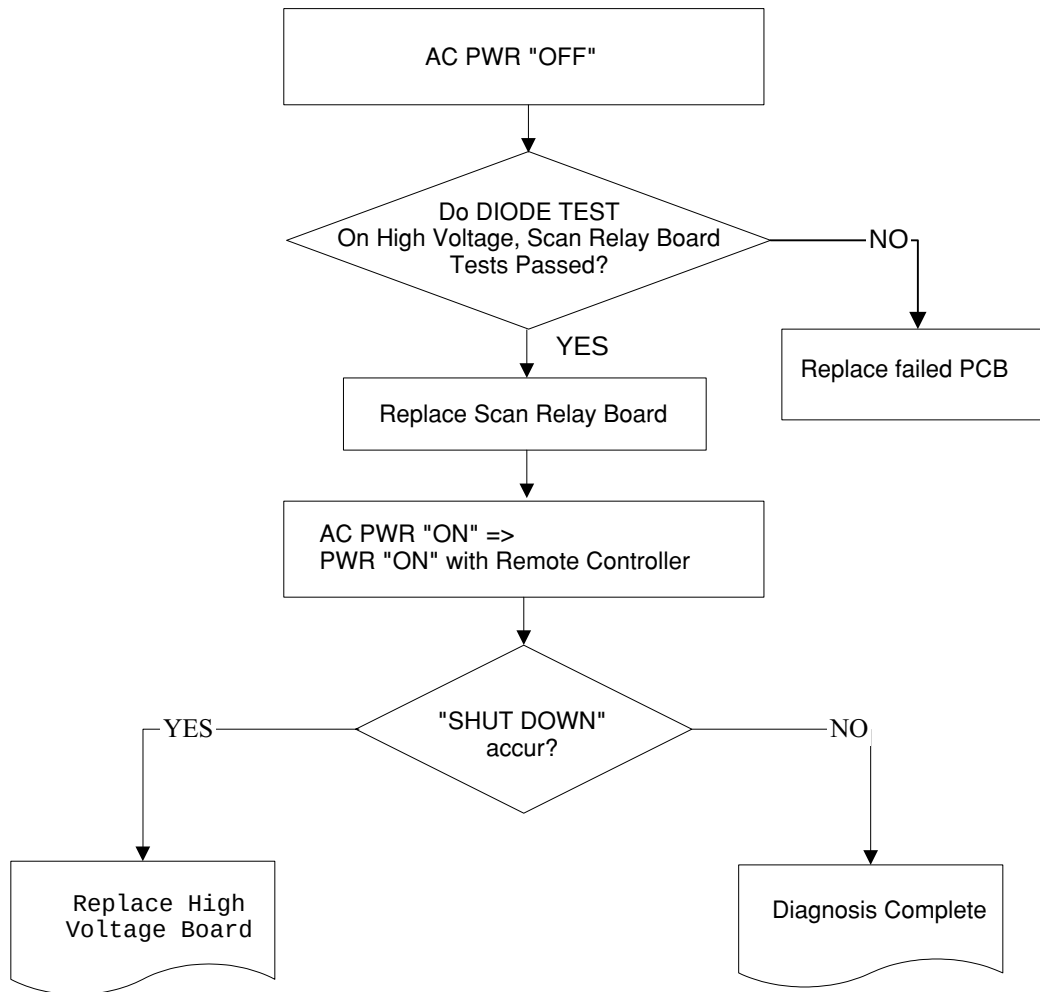
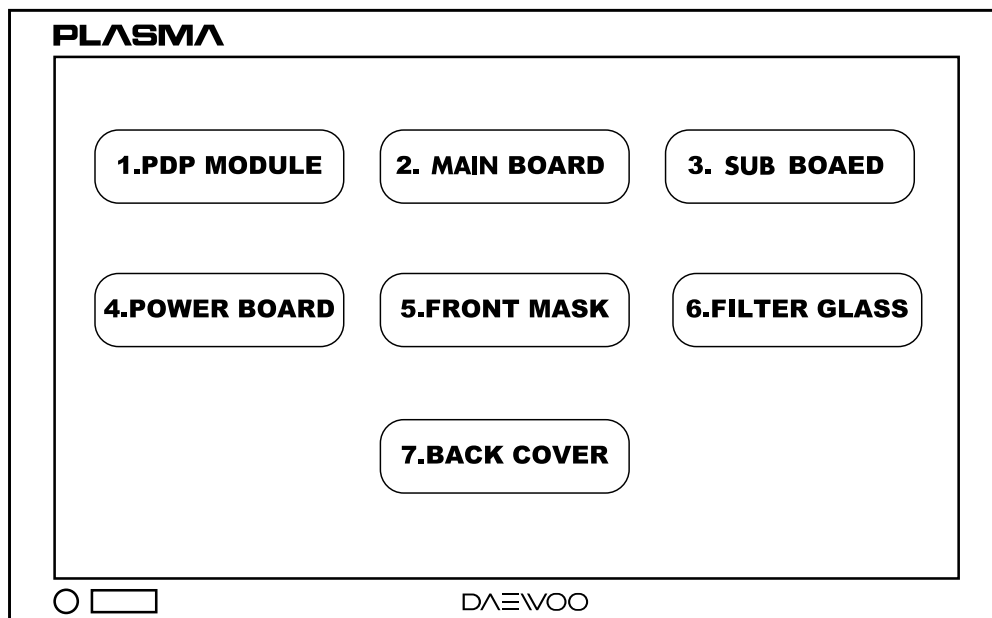


Fig. 7 Trouble Diagnosis Flow when HIGH VOLTAGE "SHUT DOWN" occurs

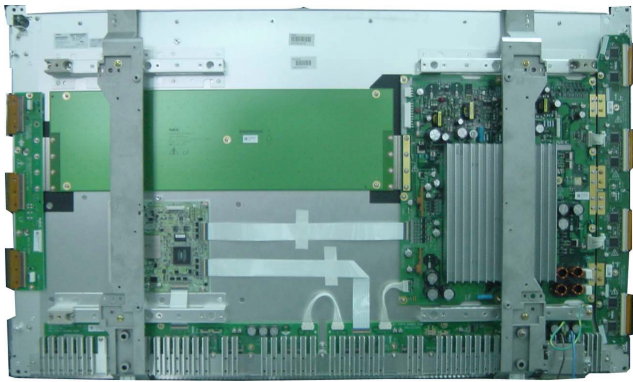
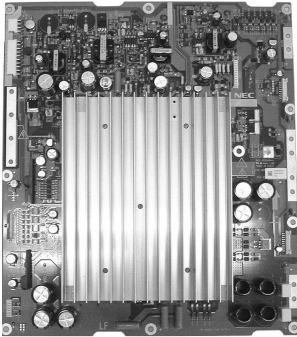
10. ASSEMBLY LIST

No.	PCB ASS'Y NAME	ASS'Y CODE	ASS'Y DESCRIPTION
1	PCB MAIN MANUAL AS	PTMPMSG048	DPN-4274NHS
2	PCB SUB MANUAL AS	PTSBMSG048	DPN-4274NHS
3	CABINET AS	PTCACAG048	DPN-4274NHS
4	COVER BACK AS	PTBCSHG047	DPP-4272NHS
5	MODULE PDP	4850M07610	NP42B3MF01
6	MODULE POWER	4850M07910	1H217W
7	HIGH Voltage PKG	485AS06490	PKG42B3G1-01D
8	Common Bypass PKG	485AS06590	PKG42B3J4/42D2J4/35B2J4-01A
9	Common Relay PKG	485AS06690	PKG42B3J3-01A
10	Data Relay PKG(L)	485AS06790	PKG42B3J1-02B
11	Data Relay PKG(R)	485AS06890	PKG42B3J2-02B
12	Scan Relay PKG-T	485AS06990	PKG42B3E1-01B
13	Scan Relay PKG-B	485AS07090	PKG42B3E2-01B
14	Digital PKG	485AS07290	PKG42B3C1-01D-06
15	GLASS FILTER	485A101180	42L4-MESH
16	CONNECTOR	4850705N31	12505HS-05+12505TS+ULW=650
17	CONNECTOR	4850706N23	12505HS-06+12505TS+ULW=450
18	CONNECTOR	4850710N16	YMH025-10R+YMT025R+ULW=250
19	CONNECTOR	4850732N01	YDH200-32 50MM
20	CONNECTOR	4950704020	YH396-04V+YT396+ULW=600
21	CONNECTOR	4850710N15	YH396-10V+YT396+ULW=600
22	CONNECTOR	4850706S25	YMH025-06R+YMH025-06R+ULW=300
23	CONNECTOR	4850702S27	YFH800-02+4272NH+ULW=450/400/600
24	PLATE INLET FILTER	4855217100	A5052 T1.0
25	SPEC PLATE	4955400100	P.E FILM 91.5X63
26	SCREW SPECIAL	4856017100	WAS M5X14
27	BRKT POWER MODULE	4853220100	SECC T1.0
28	BRACKET POWER SW	4953201000	SECC T0.8
29	MASK FRONT	4952002351	FR ABS GY
30	FILTER EMI	5P06GEEW3E	06GEEW3ES
31	SW PUSH	5S40101005	KDC-A04-10(B)-A1-G

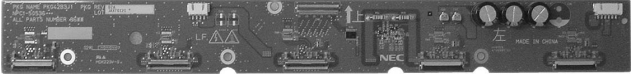
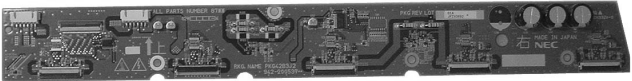
11. STRUCTURE OF PDP SET



STRUCTURE OF PDP SET

COMPONENTS	PICTURE	REMARK
1) PDP MODULE (with F/SUPPORT)		
1a) HIGH VOLTAGE PKG		
1b) Common Bypass PKG		
1c) Common Relay PKG(R)		

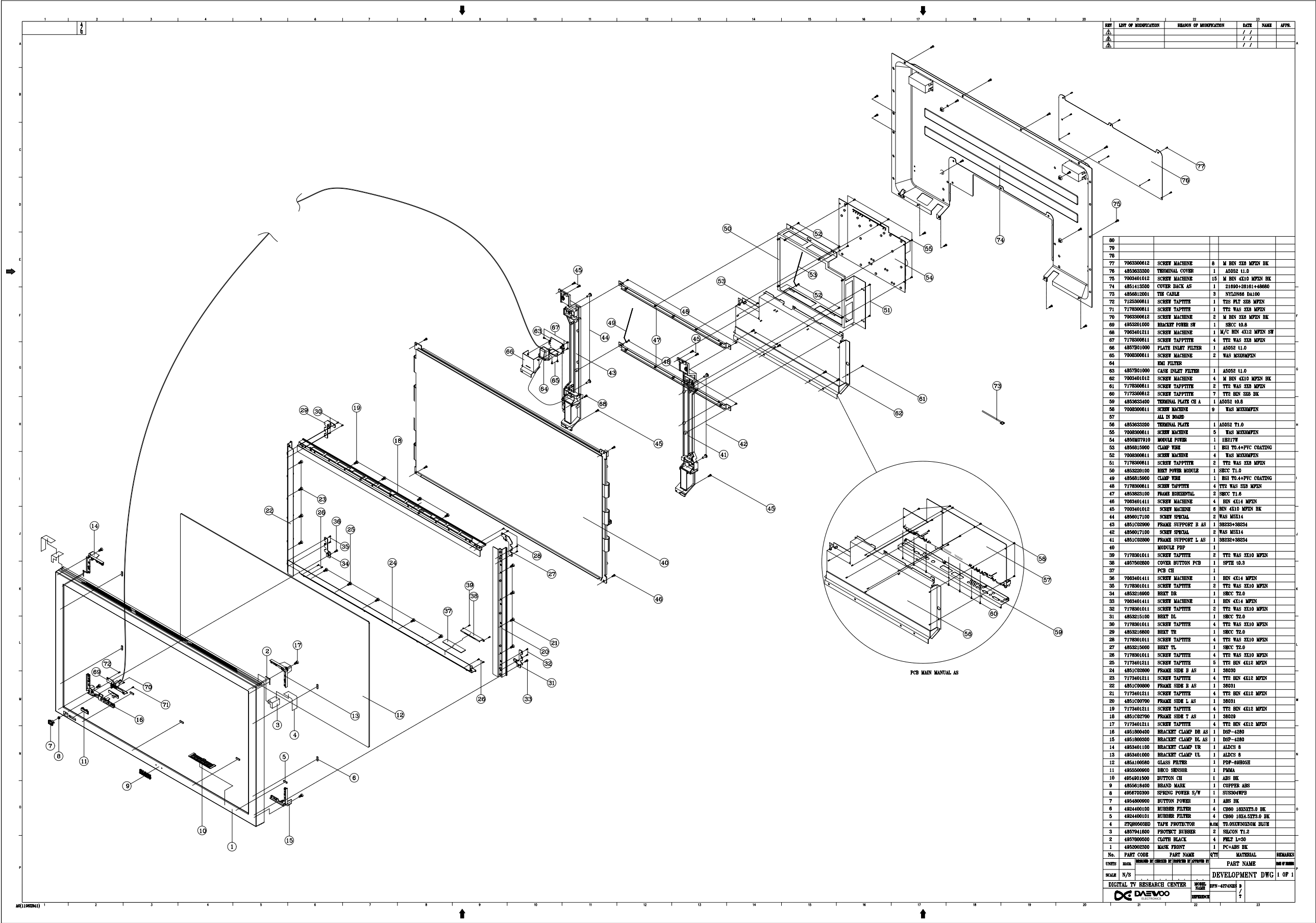
STRUCTURE OF PDP SET

COMPONENTS	PICTURE	REMARK
1d) Data Relay PKG(L)		
1e) Data Relay PKG(R)		
1f) Scan Relay PKG-T		
1g) Scan Relay PKG-B		

STRUCTURE OF PDP SET

COMPONENTS	PICTURE	REMARK
5) FRONT MASK		
6) FILTER GLASS		
7) BACK COVER		

12. EXPLODED VIEW



DAEWOO

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